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ABSTRACT

This study on the development of Southern African Third World States' academic libraries embraces three broad areas: (1) the multimedia library; (2) the development of university libraries in the Third World; and (3) the potential usefulness of the multimedia library in the conditions prevailing in the Third World. Searches of the literature on the multimedia library and on the needs and problems of the Third World were undertaken, and a questionnaire was sent to the university librarians of 10 Southern African Third World States--i.e., Botswana, Lesotho, Malawi, Swaziland, Zambia, and Zimbabwe (internationally recognized states), and Bophuthatswana, Ciskei, Transkei, and Venda (independent national states of the Republic of South Africa). The questionnaire was followed up by visits to determine the extent of relevant local development, problems, and solutions. Finally, the potential advantages of the multimedia library were applied to the needs and problems of the Third World. It was concluded that: (1) Third World academic libraries should give precedence to the function of academic support rather than to the research-oriented function of First World university libraries; (2) traditional methods of problem solving should be replaced and augmented by modern innovative methods; and (3) multimedia libraries may offer solutions to some of the educational and developmental problems experienced in the Third World. (SD)

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THE APPLICATION OF THE MULTI-MEDIA LIBRARY IN SOUTHERN AFRICAN THIRD WORLD HIGHER EDUCATION

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A dissertation presented for the fulfilment of the requirements
for the degree Magister Bibliothecologiae
at the
Potchefstroom University for Christian Higher Education.

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PREFACE

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The University of Bophuthatswana for financial assistance.

ABBREVIATIONS

AACR 2 - Anglo American Cataloguing Rules (Second edition)
ALA - American Library Association
ALASA - African Library Association of South Africa
AVM - Audio-visual material
BENSO - Bureau for Economic Development, Co-operation and Research
BLS - Botswana, Lesotho and Swaziland
CAI - Computer assisted instruction
CSIR - Council for Scientific and Industrial Research
GNP - Gross National Product
HED - Higher Education Diploma
HSRC - Human Sciences Research Council [RSA]
IMC - Instructional Materials Center
LA - Los Angeles
LATRA - Library Association of Transkei
MBO - Management by objectives
MML - Multi-media library
NCET - National Council for Educational Technology [Great Britain]
NUL - National University of Lesotho
RSA - The Republic of South Africa
SA - South Africa
SABINET- South African Bibliographic and Information Network
SAIIA - South African Institute for International Affairs
SAILIS - South African Institute for Library and Information Science
SAPSE - South African Post Secondary Education
SCECSAL- Standing Conference of Eastern, Central and Southern African Librarians
TBVC - Transkei, Bophuthatswana, Venda and Ciskei
UBBS - University of Bechuanaland, Basutoland and Swaziland
UBLS - University of Botswana, Lesotho and Swaziland
UBS - University of Botswana and Swaziland
UN - United Nations
UNESCO - United Nations Educational, Scientific and Cultural Organisation
UNIBO - University of Bophuthatswana
UNISA - University of South Africa
UNISWA - University of Swaziland
UNITRA - University of Transkei
UNIVEN - University of Venda
ZANU - Zimbabwe African National Union

CONTENTS

PREFACE...i

ABBREVIATIONS...ii

1. INTRODUCTION...1

1.1 BACKGROUND...1
1.2 THE STATEMENT AND DELIMITATION OF THE PROBLEM...2
1.3 DEFINITIONS AND DELINEATIONS...4
- 1.3.1 Southern Africa...4
- 1.3.2 The Third World...5
- 1.3.3 Southern African Third World States...6
- 1.3.4 Higher Education...8
- 1.3.5 Multi-media...8
- 1.3.6 Educational Technology...9
- 1.3.7 The Traditional Library...10
- 1.3.8 The Multi-media Library...10
- 1.3.9 Hardware...12
- 1.3.10 Software...12
- 1.3.11 Carrels...13

1.4 METHODS OF INVESTIGATION...13
- 1.4.1 Review of the literature...13
- 1.4.2 Questionnaires...13
- 1.4.3 Interviews and visits...13

1.5 ORGANISATION OF KNOWLEDGE...14

2. THE MULTI-MEDIA LIBRARY...15

2.1 THE MULTI-MEDIA LIBRARY VERSUS THE TRADITIONAL LIBRARY...16
- 2.1.1 Resistance to change...18
- 2.1.2 Historical perspective of the multi-media library...20
- 2.1.3 Educational perspective of the multi-media library...22
- 2.1.3.1 Educational Technology...25
- 2.1.3.2 Educational utilisation of the multi-media library...27

2.2 DESIGN REQUIREMENTS OF THE MULTI-MEDIA LIBRARY...29
- 2.2.1 General...29
- 2.2.2 Reader stations...30
- 2.2.3 Utilisation areas...32
- 2.2.4 Storage areas...34
- 2.2.5 Work stations...35

2.3 EQUIPMENT, FURNITURE AND FITTINGS OF THE MULTI-MEDIA LIBRARY...36

2.3.1 Hardware...36
2.3.2 Furniture...37
2.3.3 Carrels...38
2.4 MULTI-MEDIA LIBRARY SERVICES......40
2.4.1 Public Services...40
2.4.1.1 Circulation...40
2.4.1.2 Catalogue...40
2.4.1.3 Information...41
2.4.1.4 Reader stations...41
2.4.1.5 Materials storage...41
2.4.1.6 Equipment...42
2.4.1.7 Miscellaneous public services...42
2.4.2 Technical Services...42
2.4.2.1 Acquisitions...42
2.4.2.2 Processing, Classification and Cataloguing...43
2.4.2.3 Inventory control...43
2.4.2.4 Maintenance and repair...44
2.4.3 Production Services...44
2.4.3.1 Reprographics...45
2.4.3.2 Graphic/Photographic services...46
2.4.3.3 Studios...46
2.4.3.4 Storage...46
2.4.4 Related Instructional Services...47
2.4.4.1 User instruction...47
2.4.4.2 Instructional/Staff development...48
2.4.4.3 Learning laboratories...49
2.5 COLLECTION BUILDING...49
2.6 ADMINISTRATIVE ASPECTS...50
2.6.1 Organisation and management...50
2.6.2 Staffing...53
2.6.3 Finance...55
2.7 CONCLUSION...56

3. BACKGROUND TO THE DEVELOPMENT OF UNIVERSITY LIBRARY SERVICES IN THE SOUTHERN AFRICAN THIRD WORLD...57

3.1 INTRODUCTION...57
3.2 THIRD WORLD NEEDS...57
3.2.1 Educational needs...58
3.2.2 Economic needs...59
3.2.3 Cultural and recreational needs...61
3.2.4 Informational needs...62
3.2.5 Social needs...63
3.2.6 Psychological needs...64
3.2.7 Nationalism...65

3.2.8 Spiritual needs...66

3.3 THIRD WORLD PROBLEMS...66

3.3.1 Educational problems...67

3.3.2 Economic problems...69

3.3.3 Geographical and environmental factors...71

3.3.4 Staffing problems...71

3.3.5 Inadequate infrastructure...73

3.4 CONCLUSION...74

4. UNIVERSITY LIBRARY DEVELOPMENT AT SELECTED SOUTHERN AFRICAN THIRD WORLD TERTIARY INSTITUTIONS...77

4.1 INTRODUCTION...77

4.2 TRANSKEI...78

4.2.1 Background...78

4.2.2 University development...79

4.2.3 Problems...80

4.2.4 Solutions...80

4.3 BOPHUTHATSWANA...82

4.3.1 Background...82

4.3.2 University development...83

4.3.3 Problems...84

4.3.4 Solutions...85

4.4 VENDA...86

4.4.1 Background...86

4.4.2 University development...87

4.4.3 Problems...87

4.4.4 Solutions...88

4.5 CISKEI...89

4.5.1 Background...89

4.5.2 University development...90

4.5.3 Problems...91

4.5.4 Solutions...91

4.6 LESOTHO...92

4.6.1 Background...92

4.6.2 University development...93

4.6.3 Problems...94

4.6.4 Solutions...95

4.7 SWAZILAND...96

4.7.1 Background...96

4.7.2 University development...97

4.7.3 Problems...98

4.7.4 Solutions...98

4.8 BOTSWANA...99

4.8.1 Background ...100

- 4.8.2 University development...100
- 4.8.3 Problems...101
- 4.8.4 Solutions...101

4.9 ZIMBABWE...102
- 4.9.1 Background...103
- 4.9.2 University development...104
- 4.9.3 Problems...104
- 4.9.4 Solutions...105

4.10 ZAMBIA...106
- 4.10.1 Background...107
- 4.10.2 University development...107
- 4.10.3 Problems...108
- 4.10.4 Solutions...109

4.11 MALAWI...110
- 4.11.1 Background...110
- 4.11.2 University development...111
- 4.11.3 Problems...112
- 4.11.4 Solutions...112

5. AN ANALYSIS OF UNIVERSITY LIBRARY DEVELOPMENT IN SOUTHERN AFRICAN THIRD WORLD STATES AS REFLECTED IN THE SURVEY...115

5.1 INTRODUCTION...115
5.2 A SUMMARY OF UNIVERSITY LIBRARY DEVELOPMENT...115
5.3 THE ORGANISATION AND MANAGEMENT OF TECHNOLOGY OF EDUCATION AT SOUTHERN AFRICAN THIRD WORLD UNIVERSITIES...118
5.4 THE FUTURE DEVELOPMENT OF MULTI-MEDIA COLLECTIONS...119
5.5 THE UTILISATION/DEVELOPMENT OF EDUCATIONAL TECHNOLOGY AS REFLECTED IN THE SURVEY...120
5.6 GENERAL PROBLEMS THAT HAVE IMPLICATIONS FOR UNIVERSITY LIBRARY DEVELOPMENT, AS EXPERIENCED BY SOUTHERN AFRICAN THIRD WORLD STATES...121
- 5.6.1 Educational problems...122
- 5.6.2 Economic problems...123
- 5.6.3 Geographic limitations...124
- 5.6.4 Staff availability...125
- 5.6.5 Inadequate administrative infrastructure...125

5.7 SOLUTIONS TO GENERAL PROBLEMS EXPERIENCED...126
5.8 CONCLUSION...128

6. THE APPLICATION OF THE MULTI-MEDIA LIBRARY TO SOUTHERN AFRICAN THIRD WORLD CONDITIONS...129

6.1 INTRODUCTION...129
6.2 EDUCATION...129
6.3 ECONOMIC FACTORS...133
6.4 GEOGRAPHIC LIMITATIONS...134
6.5 STAFF UTILISATION...134
6.6 ADMINISTRATIVE INFRASTRUCTURE...135
6.7 USERS' NEEDS...136
    6.7.1 Informational needs...136
    6.7.2 Social needs...136
    6.7.3 Psychological needs...137
    6.7.4 Nationalism...137
    6.7.5 Cultural and recreational needs...137
    6.7.6 Spiritual needs...138
6.8 CONCLUSION...138

7. CONCLUSION...139

APPENDICES...143

OPSOMMING...153

SUMMARY...155

BIBLIOGRAPHY...157

1.INTRODUCTION

1.1 BACKGROUND

In 1931 Ranganathan formulated his five laws of library science as follows:

1. Books are for use.
2. Every reader his book.
3. Every book its reader.
4. Save the time of the reader.
5. A library is a growing organisation (Garfield, 1984:4).

The first four rules of Ranganathan's philosophy focus on the user and his information needs. Rule Five accommodates the change in or development of the needs of the user. This philosophy, therefore, can be applied to the newer technologies which form part of the modern growing library.

It is the librarian who should direct the growth to anticipate the needs of the user. This concept of directed growth applies particularly to Third World education, where the problems of development often go hand in hand with the poorer quality of life.

Developmental challenges in Southern Afri

All Southern African Third World states are at present in a transitional stage. The challenges of the technological developments which face them are immense. In order to develop optimally they must be prepared to meet these daunting challenges.

The need to relate library development to economic development in general is crucial for developing countries. Library development may be regarded as a precondition to eradicating illiteracy and its negative economic connotations (Kaungamno and Ilomo, 1979:x).

The Southern African Third World States

The Southern African Third World states are : Angola and Mozambique; Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe; Transkei, Bophuthatswana, Venda and Ciskei. The last four states are ex-national states of the Republic of South Africa which were granted independence by South Africa. Not one of the four is officially recognised as being sovereign by the international community. The Republic of South Africa under its present regime does not qualify as a Third World state. Under majority rule, however, it could be considered to be part of the Third World (Dickenson, et al., 1983:xx).

National Universities

Each of the above Third World states has at present its own university. Some of these universities were founded by the colonial powers, but most were founded after the achievement of independence. This occurrence of "one state, one university" has become a widely accepted practice in post-colonial Africa.

This practice has arisen as a reaction against the economic practices of the colonial period when money was spent mostly on relatively short term projects which would generate profits, or on the establishment of law and order in the respective territories. The university has become a symbol of independence, no less than the flag or the national anthem. It is firmly believed that the university is a vital institution for the sustenance of independence and development. It is felt that a university is a most essential investment for a country seeking to enter the modern world (Wandira, 1977:43).

In Southern Africa Botswana, Lesotho and Swaziland initially shared a single inter-state university, but each has now preferred to invest in its own independent national university.

Political considerations, rather than economic or educational motives often form the basis for this occurrence of national universities in some relatively small states. There are no less than 28 universities in the Southern African sub-continent.

1.2 THE STATEMENT AND THE DELIMITATION OF THE PROBLEM

Problems of underdevelopment

The Third World states in Southern Africa face the same problems as underdeveloped states elsewhere in the world. They share the burdens of overpopulation, illiteracy, rural overcrowding, manpower shortage, agriculture-based economies which are often unstable, and they lack a sound economic and administrative infrastructure.

A further symptom of underdevelopment is an ever increasing technological backlog as compared to the developed First World nations. Reference to this fact was made by three speakers at the 1984 SAILIS (South African Institute for Librarianship and Information Science) conference in East London, South Africa (Frylinck, 1984:7; Manaka, 1984:7; Celliers, 1984:7).

Special demands are being made on all aspects of Third World education to alleviate these symptoms of underdevelopment. It is universally

Solutions to problems of underdevelopment

accepted that education is the key to the solution of some of these developmental problems. As most underdeveloped countries are dependent on agriculture for economic survival, special emphasis is being laid on rural development and rural educational programmes.

Supportive function of t library

The library's educational function has been widely accepted. In the Third World context, however, the library should give precedence to the academic supportive function as opposed to the research-oriented function of the more established university libraries of the First World.

The multi-media library offers solutions to some of the problems

All possible alternatives that could make a contribution to accelerating educational progress should be investigated. This assumption forms the basis for the hypothesis: that the multi-media library offers solutions to some of the educational and developmental problems experienced in the Third World.

The development in educational technology

The development in the fields of educational technology over the last ten years has made a great volume of educational software in various formats for various study fields available commercially. The value of these audio-visual aids is considerably diminished if the users do not have easy access to the software stock. A review of the literature reflects that educational libraries have become aware of this fact. Over the last 20 years the educational library as a mainly book-centred institution has made way for the more open approach whereby provision is made in the library for non-book materials as well as for books.

Many universities at present have operational in-service academic development units. A unit usually consists of a team of experts in various fields of education whose function is to improve learning and teaching at the institution and also in some cases in the community.

Various models for implementing instructional development

Various models exist for implementing instructional development. These range from the non-integrated model which separates the independent units responsible for different functions, to the fully integrated model by which all the facilities for learning are housed and administered as one unit. The multi-media library forms part of this unified approach and exposes its users to diverse teaching and learning aids. The library in modern education is not merely a loosely connected appendage to teaching, but forms an integral part of education itself (Enright, 1972:10). In this context the library is

New role of the library

not perceived mainly as a storage unit, but is regarded as providing a positive contribution to teaching by having the possibility of including facilities to actually generate learning materials (Noble, 1980:170).

Limitation of the study field

This study will be limited to Southern African Third World states with a historical background that is British colonial. These are: Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe, and the four independent national states of the Republic of South Africa: Transkei, Bophuthatswana, Venda and Ciskei. All these countries still have English as one of their official languages.

Higher Education will be regarded as being tertiary education at university level.

Wherever possible, the British equivalents for American terms and spelling will be used.

1.3 DEFINITIONS AND DELINEATIONS

1.3.1 SOUTHERN AFRICA

Only states south of Zaire and Tanzania will be considered as being part of the Southern African sub-continent.

Division of Southern African states

These states can be divided into four groups:

Firstly, the ex-British colonies: Botswana, Lesotho, Malawi, Swaziland, Zambia, Zimbabwe and the Republic of South Africa.

Secondly, the ex-Portugese colonies: Angola and Mozambique.

Thirdly, the ex-German colony, Namibia (South West Africa), which is at present considered by the Republic of South Africa to be a South African protectorate.

Fourthly, the national states formed under the Republic of South Africa's policy of Separate Development that have chosen independence. They are: Transkei, Bophuthatswana, Venda and Ciskei (the TBVC states). For the purpose of this study they will be considered as independent states.

1.3.2 THE THIRD WORLD

The term, "Third World", was first used in France in the 1950's, and by the early 1960's formed part of a threefold division of the world on principally political and economic grounds. Most of the so-called "Third World" states achieved political independence from the colonial powers from the early sixties onwards (Dickenson et al., 1983:1) The Third World states accepted the collective term to distinguish them from the economically advanced Capitalist ("First World") and Socialist ("Second World") countries (Todaro, 1982:xxi).

Threefold division of t world

These Third World states are also known as "underdeveloped" or "developing" countries. This designation proves the economic connotation attached to the classification. "Underdeveloped" or "developing" implies that a measure of development of some form has taken place, but that the goal has not yet been achieved. Third World countries thus cannot be called "traditional" any more, as progress has taken place (Benge, 1979:19). This cumulative process of transition can have started anything from one hundred and fifty to four hundred years ago (Stavenhagen, 1973:85); therefore it is inadmissable to assume that the movement that has taken place is uniform. (Kotze (1980:8) regards underdevelopment not as absence of development, but as an increase of the gap between rich and poor, whilst both are developing. In this development situation, the poor are dependent on the rich for their development, but the rich derive more direct benefit from the dependence relationship than the poor. The dependence relationship can also be regarded as a neo-colonial situation. Underdevelopment can therefore be regarded as a side effect of certain forms of development.

Historical perspective

The developmental situation

The classification is also based on Western or Capitalistic ideologies and not on Communistic ideologies, which would place more stress on socialistic ideals (Preston, 1982:104). This is also the premise on which the World Bank in its 1980 report based its categorising of countries for classification. The following characteristics were used to determine underdevelopment:

Characteristics of underdevelopment

* compared to "rich" countries, the people of the poor world have diets which are deficient in quality and quantity;

* there tend to be more people working in agriculture than in manufacturing industries;

* the average life expectancy tends to be lower;

* a high percentage of the population is illiterate;

- the export economies depend on primary products derived from agriculture or mining and often only one or two of these products generate the majority of export earnings (Dickenson et al., 1983:10).

Frylinck (1983a: 9-10) isolates three broad symptoms of underdevelopment :

- economic indicators: the predominance of agriculture and mining as primary sources of work and income;
- demographic factors: a high birth rate and rural overcrowding;
- socio-cultural indicators: the low social status of women and the lack of a middle class.

Effects of underdevelopment

Effects of underdevelopment viewed from the perspective of underdeveloped communities are:

- vulnerability in practically all walks of life;
- powerlessness against nature, technology and uncontrolable social change, and against developed countries, fate and incomprehensible processes;
- poverty (Kotze, 1980:8).

The causes of poverty lie in certain deficiencies in education, organisation and discipline. Development, according to Schumacher (1973:169) starts with people and their education, organisation and discipline.

Definition of Third World

The Third World can be defined as embracing countries whose economies and progress are impeded by several restricting factors. These factors may have been induced historically, politically, geographically or climatically. Characteristics of these countries include the following:

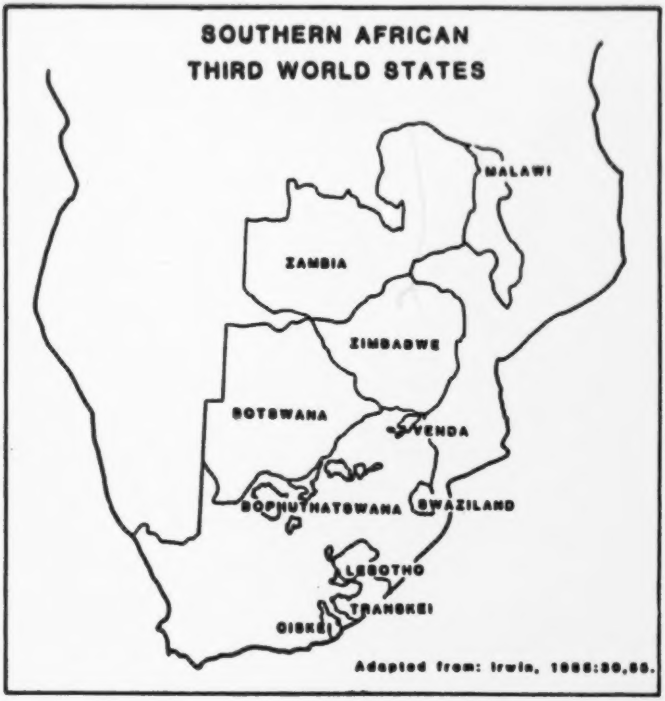
- an economy based mainly on subsistence-agriculture or mining;
- low urbanisation;
- a high percentage of illiteracy;
- a lack of a middle class;
- economies based on one or two primary products;
- the low status of women;
- a low life expectancy.

1.3.3 SOUTHERN AFRICAN THIRD WORLD STATES.

Using the above criteria for underdevelopment all African states, except the Republic of South Africa and Namibia, can be denoted as

Third World or developing nations. Namibia is excluded on the grounds of its political (Dickenson et al., 1983:xx) and economic dependence on the Republic of South Africa (Logan, 1981:191).

The catego-
risation of the
Southern
African States.


SOUTHERN AFRICAN THIRD WORLD STATES

Adapted from: Irwin, 1985:30,55.

Therefore, all the internationally recognised states embraced by this study, namely: Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe may be regarded as being Third World states.

Frylinck (1983a: 8-11) has tested the ex-national states included in this study for the symptoms of underdevelopment and concludes that they all experience the economic, demographic and socio-cultural characteristics of underdevelopment. For the purpose of this study, therefore, the ex-homelands of the Republic of South Africa that have opted for independence, namely: Transkei, Bophuthatswana, Venda and Ciskei will be considered as part of the Southern African Third World.

1.3.4 HIGHER EDUCATION

One university in each state

All Southern African Third World states have one institute of higher learning at university level. This institution is in the public sector and offers courses for diplomas, first degrees and higher degrees, and also engages in research.

Entrance qualifications are higher

Admission to universities is restricted to distinguish them from lower levels of tertiary education and a secondary qualification of a higher level and status is required as entrance qualification.

This study will be limited to institutions of higher education at university level.

1.3.5 MULTI-MEDIA

Media defined

The English term, "medium", "media" (plural), is derived from the Latin, "medium", meaning "middle" (Lewis and Short, 1969:1125). "Media" therefore operate "between" a source and a receiver, and multi-media form part of the multi-facetted process of communication.

Media are extensions of ourselves

Media, as seen by Marshall McLuhan (1964:11), are extensions of ourselves. We extend our senses by the technological simulation of consciousness. Through this extension of man, mankind gains access to new frontiers of knowledge.

Technological advancement is a precondition

Technological advancement is a precondition for the multi-media communication process. This technological advancement extends from the first stone used to etch a message on a cave wall to the modern technological communication facilities.

Multi-media defined

"Multi-media encompass graphic, photographic, electronic or mechanised means of arresting, processing or reconstructing visual or verbal information or any form of device or equipment which is used to transmit information between persons" (Enright, 1972:13).

When multi-media (excluding the book) are used to transmit messages with an educational content, as is the case in this study, the term is

Non-book materials in educational context

The Generic Book

seen as being synonymous to the terms, "Educational Media" or "Audio-Visual Media/Materials", the latter term being used if the media appeal mainly to the eyes and ears of the learner. Louis Shores (1960:3) defines "Educational Materials" as any medium of communication used by a teacher to facilitate learning. This definition incorporates all teaching tools from books to audio-visual materials. This advocating of "all information in any form" was first used by Louis Shores in the 1950's to describe his "Generic Book" in his "Crusade for Unity" of educational materials (Hostrop, 1973:142). The Generic Book is defined as the "sum-total of man's communication possibilities". It includes all media formats for all subjects at all levels. Under this definition a 16mm film is just as much a "book" as a collection of 32 or more pages of paper, bound or loose leaf, consisting of printed reading matter or illustrations. Other formats of the Generic Book include film-strips, transparencies, gramophone records, audio tapes, radio transcriptions, video tapes, and even realia (Shores, 1973:15). All forms of multi-media can form part of the contents of a library. For the purpose of this study multi-media can be further broadly subdivided into non-book materials and books.

1.3.6 EDUCATIONAL TECHNOLOGY

Technology

Technology as a process can be regarded as the systematic application of science in support of man's search to accelerate his rate and expand his scope of progress. "Contemporary writers see technology as a constellation of interlocking systems and activities which get work done with a constantly diminishing input of human labour" (Gillet, 1973:2).

The educational application of technology

Technological products are generated by this process and these can also be applied in support of the practical arts. The educational spin-off of the technological process is the development of the various multi-media formats and equipment. The educational application of multi-media is part of educational technology. The concept of educational technology, however, involves more than merely the application of multi-media. The American Commission on Instructional Technology formulated a definition for educational technology as follows: ". . . media born of the communications revolution which can be used for instructional purposes alongside the teacher, the textbook and the blackboard"; the British National Council for Educational Technology defines educational technology as: ". . . the development, application and evaluation of systems, techniques and aids to improve the process of human learning" (Beswick, 1977:39).

Beswick (1977:39) as well as Schramm (1977:12) point out that the American term, "Instructional Technology", and the British term, "Educational Technology", are synonymous.

Definition

Educational technology can therefore be defined as the educational application of scientific developments in the technological field. This concept also includes the agent through which education must take place, the methods used to facilitate education and the management of the practice of educational technology.

1.3.7 THE TRADITIONAL LIBRARY

Definition

For the purpose of this study, the "traditional library" will be defined as an institution with a primarily book-centred approach to the collection, classification, storage and retrieval of information. Non-book materials in this context, are not regarded as part of the responsibilities of the traditional library and are stored and utilised elsewhere.

1.3.8 THE MULTI-MEDIA LIBRARY

Four models

Four models exist for the utilisation of educational technology. They are based on the following principles:

> Segregation: Here no formal co-operation exists between the library and the unit/department responsible for educational technology. Each has its own field of specialisation.
>
> Peaceful co-existence: There is no, or very little, formal co-operation, but the units respect each other's independence.
>
> Partnership: Although the units are independent, there is a well developed relationship and formal co-operation. Usually there is a formal division of responsibility between the two units.
>
> Integration: Here we find a library and media unit integrated into a single structure and led by a single director (Lor and Welch, 1983:87-88).

Terminology

In a survey of the literature it appears that the following terms are used to describe what is generally understood to be the "integrated model" or a variation of it: "Multi-media Centre", "Learning Resource Centre", "Comprehensive Library", "Multi-media Learning Centre", "Resource Centre", "Library Resource Centre", "School Library/Media Centre", "Instructional Media Centre", "Media Centre" (UNESCO, 1977:7), "Instructional Materials Centre", "Educational Materials Centre", "Instructional Communications Centre", "Student Self-directed Study Centres", "Unified Resource Services", "Exemplary Unified Learning Centres" (Enright, 1972:109) and "Multi-media Library" (Cabeceiras, 1978:iii).

Multi-media library

In this study the term, "multi-media library", will be used as it embraces all aspects and components of the integrated model without emphasising one or the other aspect unduly. It is, however, specific and descriptive enough to be informative.

The concept of the multi-media library should be an attitude of mind

"The multi-media library should be seen principally as an attitude of mind which bypasses the irrelevancy of materials having different physical shapes. It regards collections not as additions, but as alternatives. The information content is organised as a single entity"(Shifrin, 1973:24-25).

Needs of the user

The functions of the library should always be seen in terms of the needs of the users. The effective librarian should not merely meet the present needs of the users, but should also anticipate their future needs and accommodate them in terms of the goals and objectives of the institution he serves. If the future needs of the users are to a large extent educationally related due to their attempt to meet the technological challenges facing them, an effort should be made to facilitate the user's informational/educational needs.

Materials selection

The criterium employed by the multi-media library for the selection of library materials should be the contribution that these materials could make to the curriculum and the learning experience of the students (Enright, 1972:26). The movement in modern education is to optimise learning by taking learning to the student and to individualise learning by using all man's communication possibilities (Hostrop, 1973:15). The shift is therefore from the largely passive role of the traditional library to an active role of participation in learning via the multi-media library.

The multi-media library defined in terms of its function

Grandstaff (1971:206) defines the multi-media library as the ". . . systematic structuring of materials, equipment and services available to the students and teachers for utilising in the learning process. The fact that teachers will use the materials for teaching is incidental, because the outcome is still learning". The multi-media library is therefore defined in terms of its function, which is user-oriented. It offers facilities for students and teachers to engage in learning activities as widely varied as discussions, reading, listening and viewing, either independently or in groups, and even to produce materials for classroom use. The concept includes the organisational arrangements applied to the materials and equipment, and the management of the services the library must provide to fulfil its educational function. This function has six aspects: the collection, categorisation, evaluation and distribution of materials and equipment, as well as the categorisation and evaluation of services (Grandstaff, 1971:206).

Definition

The multi-media library as the instrument for effecting the implementation of the integrated model can be defined as the agent for the organisation , utilisation and management of all formats of information as well as for the utilisation and management of educational technology in an attempt to optimise educational development.

1.3.9 HARDWARE

Equipment needed to translate the message

Hardware, as was stated in 1.3.5 forms part of multi-media. As most of the multi-media are technological developments, they require some form of equipment to deliver their message. The equipment can be the television set, the computer or any other mechanical or electrical device available.

1.3.10 SOFTWARE

The instructions given to the machines

Software also forms part of multi-media. Software can be defined as the programming of or the instructions given to the machines (hardware) by human beings to accommodate the individual differences of the receiver of such mesaages (Gillet, 1973:3). Software can therefore be anything from an overhead transparency to a computer programme.

1.3.11 CARRELS

Originally the term, "carrel", referred to the individual cloistered study area of a monk. More recently, the term has been used to describe the furniture in the study area of a library that a user can use when reading, studying or doing research. The modern carrel, however, has a broader application which includes the equipment needed for individualised, small group or self-paced instruction, as well as the old-style study carrel (Spangenberg, 1975:305). One can distinguish between "wet" and "dry" carrels. "Wet" indicates that provision has been made for electrical outlets or that hardware has been installed permanently in the carrel. "Dry" indicates the absence of such outlets or equipment and the carrel is usually utilised only for private study purposes (Wilkinson, 1971:157).

The modern carrel

1.4 METHODS OF INVESTIGATION

1.4.1 REVIEW OF THE LITERATURE

To gain a sound theoretical background an investigation is to be made into the literature covering the following aspects :

Development Studies, The Third World, Education, Educational Technology, Library Science and Multi-media Libraries.

1.4.2 QUESTIONNAIRES

Questionnaires will be used in an attempt to establish the state of the art regarding multi-media developments, the availability of multimedia, the utilisation of multi-media and the policy regarding multimedia in libraries.

1.4.3 INTERVIEWS AND VISITS

The interviews will serve as follow-up to the completed questionnaires.

An attempt will be made to establish the background to the university library development and to investigate the envisaged future development of multi-media library facilities at the various institutions.

Problems experienced in the development of library services and possible solutions to these problems will be discussed.

The approach to staff development at the various university libraries will be determined.

1.5 ORGANISATION OF KNOWLEDGE

Chapters One and Two will be based on a literature survey and will form the theoretical basis of the study.

In Chapter One all the terms will be defined and/or delineated as used in the context of this study. Chapter Two will contain a description of the structure of the multi-media library and will focus on its educational application as well as on organisational, administrative and managerial aspects.

Chapter Three will be based on the literature survey. The problems experienced by Developing Countries will be placed in global perspective.

Chapters Four and Five will be based mainly on the results of the questionnaires and on the consequent visits to the institutions. In Chapter Four each state will be placed in its historical perspective as regards political progress and library development. This investigation will serve as background to the specific library problems experienced and the local solutions advocated. Chapter Five will analyse the collected data in terms of library development and general problems experienced, as well as in terms of the local solutions offered to meet these problems.

In Chapter Six the application of the multi-media library will be investigated to the extent that it solves or alleviates some of the general developmental problems experienced and attempts consequently to expedite development in the Third World states.

The conclusion will reflect on the possible developmental consequences of the application of the multi-media library in Southern African Third World states.

2. THE MULTI-MEDIA LIBRARY

Audio-visual materials have had an impact on librarianship and the effect on librarianship has been salutory, as general principles of librarianship have been developed to encompass these materials, rather than to thrust them out as a separate branch of librarianship (Harrison, 1981:4). The academic library has also taken up the challenge and has reassessed its role from that of being mainly a research supportive institution, to that of being an active participant in the teaching and learning programme at all levels. This role would, of course, also include research, but the main emphasis has shifted (Thompson, 1977:9).

The impact of audio-visual material(AVM)

This acceptance by many librarians of the responsibility of information dissemination, notwithstanding form or format, has evolved naturally. It is the librarian who, above all else, is trained in the acquisition, description and dissemination of information. Thus it is he who is best qualified to lead in combining inter-disciplinary skills (Hamlin and Sprinkle, 1971:142).

The librarian is qualified t enter the AVM field

This chapter is intended to delineate what is understood by the term, "multi-media library", and as such it is an expansion of the definition (1.3.8). This delineation will focus on the aspects relating to the application of educational technology in educational libraries, in order to distinguish the multi-media library from the more traditional library approach. Therefore, more attention will be given to aspects regarding the multi-media library, or to areas where the multi-media library differs from the traditional library. The description, however, is not intended to provide a conclusive delineation of the multi-media library, but merely intends to place it in educational perspective in order to apply the term meaningfully in the context of this dissertation. This chapter should therefore be considered to be a description of what is deemed acceptable within the constraints of the general theme. These constraints limit the deliberations to the basic essentials of the multi-media library and other possibilities are therefore not precluded.

The treatment of material in this chapter

2.1 THE MULTI-MEDIA LIBRARY VERSUS THE TRADITIONAL LIBRARY

The relationship between books and non-book materials

"From the point of view of the user, the aspect which needs to be stressed is the relationship, not the difference between books and non-book materials" (Enright, 1972:70). This relationship was pointed out by Melvil Dewey in 1906, when he pointed out that a library is not merely a collection of books, but the central agency for disseminating information. Whenever this function can be performed better, more quickly or more cheaply by a picture than a book, the picture is entitled to a place on the shelves or in the catalogue (Beswick, 1977:63).

The library must become a dynamic force in the information transfer process

The demands of society necessitate a shift in emphasis that translates with greater validity the concept of diffusion of knowledge in all formats and its consequent effects. To ensure a continuous kinetic process the library must abandon the traditional role of passive agent concerned primarily with holdings, and become a dynamic, interactive force which directs its efforts towards the creation of situations in which communication can occur (Hicks and Tillen, 1977:13). McLuhan (1964:99) sees all technologies as extensions of man to increase power and speed. This creation of new extensions of ourselves is a prerequisite for further technological development.

A shift in the role of the library in education

As society develops and grows more complex and media-oriented, no one particular format for communication can be considered as most appropriate. As materials and services become more accessible, the potential for use, and in turn, the potential for learning becomes greater (Allen and Allen, 1973:12-13). The role of the library has changed in essence from the traditional concept of storage to that of service (Enright, 1972:111). To perform this new dynamic role the library has become person-oriented, rather than people-oriented. The individual is becoming more aware of his own educational development due to of his being exposed to all forms of technology from a younger age. He can therefore discriminate better between successful and unsuccessful modes of communication (Butler, 1982a:66). This critical attitude of the younger generation was reflected in the student unrest in America and Europe in the late 1960's and early 1970's when the students demanded a more "relevant" education with more emphasis on individualised and effective learning and teaching. The pressure from the students helped to bring together the various components of systems design, educational technology, learning psychology and programme evaluation (Diamond, 1980:51). The multi-media library should be developed within the philosophy of the institution; in fact, its major source of support will be drawn from that philosophy (Allen and Allen, 1973:105). The user whom the philosophy must serve is ultimately the major determinant of the philosophy.

The user is t determinant o the philosophy of the institution

The shift in philosophical emphasis of the library's role has come about through the development of techniques for storage and retrieval of materials which have developed concurrently with new educational techniques to include the extended use of individualised educational materials and the availability of numerous communication media. Improved technology mandates the planning of the information depository of today and the future, so that the expanded needs of the students and the lecturing staff can be served more effectively and efficiently (Fothergill, 1971:28). The notion that packaged information is the library's basic concern is obsolete. The library should generate new information itself (Amadi, 1981:51). Packaged information should be disseminated in its most appropriate medium. The librarian should therefore be aware of the various formats, how they are disseminated and how best they serve a particular information need. An examination of the types of materials currently being circulated by libraries provides evidence that change is taking place (Cabeceiras, 1978:4). This change has come about as a result of the librarian's involvement with the augmented information dissemination process. Although originally mainly book-centred, effective networks of communication and information between institutions have been developed, and valuable experience has been gained in co-operation by, for instance, the use of centralised records and joint catalogues. Although additional problems will arise with non-book materials, there is little justification or advantage in attempting to establish a separate system distinct from libraries or in failing to use and apply the experience which the libraries already possess (Enright, 1972:86-87).

Improved technology has developed

The library should participate in the dissemination of all information format

Library administrators and planners realise that in the near future a major portion of man's information resources will be in non-book format and that the role of libraries is changing (Quinly, 1971:467). Furthermore, many items of information are available only in non-book format, and if the facilities are not created to retrieve the information easily, it will not be utilised to the full (Heery, 1983:187). Many of the newer materials require some type of technological device to gain access to their information. The multi-media library can provide this service by having the necessary equipment available, either

The library must make information accessible to the user by providing access to AV to optimise learning

on loan or in permanent use in the library in properly designed areas (Cabeceiras, 1978:6). This extension of the information function of the traditional library into an active participating unit leads to the utilisation of all information sources in any media format, thereby providing the opportunity to optimise learning (Hostrop, 1973:15).

There are areas where overlapping occurs between NBM and books

In essence, the motivation for the multi-media library is service to the user. The separation of book and non-book materials and services is artificial, costly and confusing to users. In the long run, it is felt that dual materials centres which separate book and non-book materials will reduce the effective use of learning materials. From the professional literature of both librarianship and educational technology, it is difficult to determine the distinction between book and non-book materials (Shores, 1973:33). Because of this overlap guidance can be given conveniently to users as all media are stored under one roof. The multi-media library can also be a very effective way of up-dating teaching and learning methods (Lor and Welch, 1983:87).

There is a movement towards multi-media libraries

After conducting a survey of more than 300 United States colleges in 1974, Peterson (1975:100-102) concluded that there is a definite movement away from the traditional library model to the multi-media model. This break with tradition seems to have been sparked off by both financial and personnel considerations. However, the potential for higher quality tuition that the multi-media library concept offers the institution, also played a role in this change (Peterson, 1975: 66).

The librarian can adapt

The librarian as a trained information worker, has always been able to adapt to new developments in his field. The modern tendency in Library and Information Science is increased specialisation due to rapid developments in the field. Therefore, if the librarian's field of specialisation is the educational application of media, he will make an effort to keep abreast of the latest developments and applications in his field.

2.1.1 RESISTANCE TO CHANGE

The resistance to change in libraries can be correlated to historical precedents: the Egyptian "librarians" complained about the change from sturdy stone and clay tablets to flimsy papyrus scrolls (Davis, 1971:61). Even the printed book was not accepted when it first appear-

Historical precedents

ed. Some 15th century librarians refused to admit contemporary "incanabula" as qualifying for inclusion and restricted their collections to original manuscripts (Shores, 1973:94). More recently, at the turn of the century, the reluctance to accept the use of the typewriter to type catalogue cards can be observed (Shera, 1972:262).

The librarian is used to the printed word and some feel insecure about [illegible]

Throughout their professional careers librarians have used the printed word and are well aware of its value. Their contact with non-book materials may have been limited and they may see no reason why the non-book materials should be included in their collections (Fothergill and Buchart, 1978:42). This reluctance of librarians to adapt to the concept of integrating the non-book materials in their collections was also observed by Louis Shores (1973:13) in his "crusade for unity". This reluctance he ascribes mainly to insecurity about the new equipment and materials.

Other reasons for reluctance

Other reasons for the reluctance of librarians to become involved with non-book materials are :

* the complexity of conventional library problems;
* librarians are faced with an information and knowledge explosion and they lack trained staff;
* lack of multi-media library procedures;
* cost of materials and equipment;
* the difficulties of the physical form;
* rapid obsolescence;
* many of the new formats lack full descriptive documentation;
* the copyright problems which are more complex than those of books (Fothergill, 1971:21-23).
* Training of librarians in non-book materials is to a large extent deficient and this can lead to a lack of confidence when the librarian comes into contact with non-book materials (Enright, 1972:53).
* The technical services such as cataloguing are time-consuming, very specialised and require special training (Ramey, 1971: 94-95).

The above-mentioned reasons for the reluctance of librarians to become involved with non-book materials are in no particular order of importance. Further, in certain cases, only a few of the possible reasons may be applicable, depending on local circumstances.

Staffing and management problems

During a study tour of American, British and Israeli educational institutions to observe the functioning of multi-media libraries, Lor and Welch (1983:87) found that the arguments against the integrated multi-media library were centred mainly around the staffing and management of such a unit. It is apparently difficult to find a director with a dual background of expertise in both education and librarianship.

Over-enthusiastic exponents

The over-enthusiastic efforts of some exponents of educational technology as well as of the apparatus-oriented approach have also lead to a measure of resistance, since each new "gadget" was acclaimed as the ultimate solution to educational problems. When expensive apparatus becomes redundant mistrust is fostered (Van Zyl, 1979:3).

Some feel they are part of an established profession

Some librarians also feel that they are part of a profession with a long tradition and established status and they fear that, if they were to venture into a new field, they may prove incompetent (Ramey, 1971: 94). Many librarians feel completely unprepared to face the new technology and they would prefer to deter it to some other department (Tottler, 1970:20).

2.1.2 HISTORICAL PERSPECTIVE OF THE MULTI-MEDIA LIBRARY

The development of the multi-media library cannot be isolated from the development of the application ot educational technology in all its forms, since educational technology is one of the components of the multi-media library.

Earliest examples of educational technology

The earliest recorded examples of educational technology originated in the Orient more than 2000 years ago. Shadows produced by body and hand actions were used to convey sophisticated messages (Grove, 1975:x). A trans-cultural/trans-language means of communication was realised by many primitive cultures, such as the American Indians, the Bushmen and the Egytians who communicated pictorial messages on the walls of their dwellings.

The educational application was stunted

Throughout the ages teachers have been aware that teaching which appeals to as many of the senses as possible results in better retention by the learner (Wilkinson, 1971:1-2). The educational application of these theories was limited and due to the lack ot technology the effect was also not so marked.

The development ot many teaching aids has been a logical off-shoot of the "Electric Age". Due to the availability of electric power a host ot audio-visual devices were developed (Hostrop, 1973:15). One of the first of these devices was the "Magic Lantern" that was developed in Germany in 1870 and was used in Germany only a few years later. Research was completed in 1917 demonstrating the educational value of the motion picture, following Edison's demonstration of a prototype in 1894 (Merril and Drob, 1977:1). The period before the Second World War reflected fairly low-key development in the field of multi-media libraries (Beswick, 1977:35). Since the Second World War many new learning resources have appeared. The first was closed circuit television which gained wide acceptance. Thereupon followed language laboratories, programmed learning, self-instructional laboratories and computer-assisted learning (Shores, 1973:15-16). There are several reasons for this rapid development, especially in the USA:

Technology w
enhanced by
"Electric Ag

The Second
World War
formed a
watershed in
the development

* the "knowledge explosion" by which the whole scope and shape of what was known changed and increased rapidly;
* the rapid changes in technology and industry;
* the rapid development in the computer industry;
* the "Space Race" with the USSR (Beswick and Beswick, 1981:2)

It was the launching of "Sputnik" in 1957 by the USSR that lead to the release of millions of dollars into the educational and research fields. Due to these generous programmes, multi-media libraries increased their collections substantially (Blazek, 1981:ix). Previously emphasis had been laid on the entertainment value of audio-visual material, but now it was believed that audio-visual materials would be the key to educational development (Harrison, 1979:209). Although money was not always well spent, this educational strategy put the USA back in the Space Race (Beswick, 1977:13-14). The development of multi-media in the USA was therefore state-initiated, but in Britain the initiative was more localised (Beswick and Beswick, 1981:3).

The educatio
application
realised

There is a long established library tradition by which certain materials which are distinctly non-book in character are collected and organised. Not only maps, illustrations, charts, portraits and paintings, but even death-masks and skeletons have found their way into libraries. Slides and gramophone records were also naturally assimilated into library collections (Enright, 1972:79). The most marked change in the development of multi-media libraries occurred since the Second World War. In examining the changes since the Second World War, we find libraries providing information in many different forms: books, micro-forms, art prints, periodicals, gramophone records, audio tapes, games and simulations, motion picture films, slides, filmstrips, models, realia and minerals. Several of the items listed were

Long traditi
of libraries
organising
non-book
materials

not even available prior to 1945. Currently we are beginning to witness the introduction of video tapes and computer terminals into the repertoire of services provided (Cabeceiras, 1978:2).

Sound economics to incorporate all media

This change in the holdings and services provided by many libraries came as a natural development. It was felt that it would be sound economics to create a single unit to house all the media of communication as well as the utilisation technologies. This policy would lead to a more comprehensive service to students and teaching staff (Peterson, 1975:20-31).

The emphasis of the library of the future needs to be placed on how to accommodate change.

2.1.3 EDUCATIONAL PERSPECTIVE OF THE MULTI-MEDIA LIBRARY

The MML offers a unified approach

When considering the individual components of the multi-media library, namely: the "library" component, the non-book component, the educational technology component and the production component, it becomes apparant that each component makes an individual and often uncoordinated contribution to education. When looking at the sumtotal of the components of the multi-media library and their internal relationships as a concept, the educational function is placed in a wider perspective because the multi-media library offers a unified approach to face the challenges of modern education. Alfred North Whitehead once said, "Education which is not modern, shares the fate of all things which are kept too long (Wigglesworth, 1982:17).

Illiteracy should be measured in terms of the ability to learn

J.S. Bruner observed that the most single characteristic of human beings is that they learn (Enright, 1972:97). Modern society, however, makes additional demands on the learners because of the rapid development in the sciences. The illiterate of today is not the person who cannot read; it is the person who has not learned to learn (Toffler, 1970:375). It ir to this objective that all educational effort should be directed. The modern teacher is not regarded by his students as the source of all knowledge. Traditionally this was his role; he had to guide the students, often with only one objective in mind - the passing of examinations (Beswick and Beswick, 1981:3). The accent therefore has shifted from the teacher as the only source of information, to the teacher as manager in the teaching/learning situation (Human Sciences Research Council, 1981:50).

Precondition
for learning

Hostrop (1973:18) concludes that in a hundred years of research into human learning, only four axioms have proven true:
* Learning is facilitated if the learner is motivated;
* Learning is facilitated if the learner knows what he is supposed to learn;
* Learning is facilitated if the learner is actively involved in learning;
* Learning is facilitated if the learner has feedback of his progress.

Ancillary to these four axioms are two supportive techniques to facilitate learning:
* Firstly, the more of the five senses that are involved in learning, the greater will be the learning;
* Secondly, learning will be enhaced if individualisation is applied to the learner or to the group he belongs to.

The above exposition counters arguments and fears that teachers have had about their replacement by machines. In the long term these learning functions have to be initiated by teachers, and machines will only assist them with the execution of their tasks.

Causes of the
changes in at
titude towar
learning/teac
ing

Molstad (1983a:7) lists the following considerations as instrumental in changing the philosophies and methodologies regarding teaching and learning.
* The increasing numbers and individual differences of students seeking basic and continuing education;
* The question of the "sacrosanct" lecture method of disseminating knowledge which is proving inadequate in meeting the needs of the students;
* The computer revolution which has compressed the world of information transfer;
* The diminishing economic base for education as other priorities receive a greater percentage of total world resources.
Acknowledging these changes, during the last two decades most countries of the world have concerned themselves with the role the newer educational technologies can play in contributing to the efficiency and effectiveness of education from primary to tertiary levels.

A section of the Human Sciences Research Council (HSRC) Report on the Provision of Education in the RSA (1981:50-51) is devoted to the application of educational technology in education in general. The

Educational technology seen as fundamental to educational planning

final recommendation regarding educational technology is, "That as a policy decision educational technology be accepted as a fundamental factor in the planning, development and implementation of educational provision at all levels, both in the formal and non-formal sectors" (HSRC, 1981:171).

Research findings on the application of educational technology

Molstad (1983a:13) bases the following claims on research he has done on the application of educational technology:
* "Significantly greater learning often results when [educational] media are integrated into the traditional instructional programme.
* Equal amounts of learning are often accomplished in significantly less time using educational technology.
* Multi-media instructional programmes based on a 'systems approach' frequently facilitates student learning more effectively than traditional instruction.
* Multi-media and/or audio-visual tutorial instruction programmes are usually preferred by students when compared to traditional instruction".

On the basis of a two-year study on the past, present and future of educational technology in the USA, the Commission on Instructional Technology came to the following conclusions concerning the potential benefits of educational technology: educational technology can make education more productive, individualised and powerful; can give education a more scientific base; can make learning more immediate and can make access to education more individualised (Molstad, 1983b:47). Many of the above findings overlap with those of the HSRC Report.

The MML can deliver the infrastructure for implementation of educational technology

Educational media science and library science have long held parallel and sometimes overlapping positions within education. Specialists in both fields are concerned with the control and management of media and in practice both have primarily non-teaching roles (Peterson, 1975:24). One of the preconditions for the implementation of the effective use of educational technology is a supportive administrative infrastructure to facilitate use (Molstad, 1983a:14). The multi-media library can provide such an infrastructure.

The acceptance of the principle of the multi-media library which provides for all the educational media and resources to meet the users' needs can be based on several premises:

The educa-
tional ratio
ale for the
integrated
model

- Educational media regardless of their formats should be viewed firstly for their informational quality and intellectual stimulation possibilities and secondly, for their format potential.
- Learning institutions do not only provide learning, but also the access to learning.
- Educational media extend a lecturer by buoying up his instruction and making it more effective.
- Teaching is but one element in the learning milieu and is not the sumtotal of learning.
- A diversification of learning methods should be applied to accommodate different subject matter.
- An integrated approach is more economical in terms of human and non-human resources (Peterson, 1975:25).

Report of the
Carnegie
Commission

A report by the Carnegie Commission on Higher Education titled, "The Fourth Revolution: Instructional Technology in Higher Education", states that, ". . . the library, by whatever name, should occupy a central role in the instructional resources of educational institutions. Its personnel should be available, not only for guidance to materials held on campus, but should also, when qualified by subject matter expertise, be utilised as instructors. We also believe that non-print information, illustrations, and instructional software components should be maintained as part of a unified informational infrastructional resource that is catalogued and stored in ways that facilitate convenient retrieval as needed by students" (Grove, 1975:ix). Findings of various United States committees, commissions and task-forces all recommend that the unification of print and non-print media should lead to easier access for individual or group study (Grove, 1975:ix-x).

2.1.3.1 EDUCATIONAL TECHNOLOGY

Educational
technology
should form
part of wide
educational
planning

As was pointed out in the definition (1.3.6), the concept of educational technology as used in the context of this dissertation is wider than the connotation often attached to this term, namely only the audio-visual aids to education. This misconception resulted in confusion regarding the potential of educational technology in education, especially in the 1960's during the emergence of the concept. The real potential of educational technology lies in its combined use as integral part of a planned system to suit the individual learner's needs. This realisation has resulted in the active implementation of educational technology in a systems approach (Holstad, 1983a:8-9).

Designing such systems has become a specialised task for educational technologists as well as for innovative and motivated subject specialists (Noble, 1980:15). However, even if little formal background regarding these systems occurs, there is enough literature available to assist lecturers in the design. It is more a question of initial motivation and introduction to courses, perhaps by illustration or example. This example can be set by user education courses in the multi-media library.

The practical application of educational technology

Educational technology in practice means one of three things:

* "The equipment and software of the audio-visual and computing industry which can be applied in education.

* Such equipment and materials being used as an accompaniment to or in an educational [situation].

* The systematic analysis and design of learning sequences based on careful examination of objectives and constraints, and utilising a chosen selection from all available methods and resources according to their suitability" (Beswick, 1977:45).

The teacher's role is changing

The teacher's role is therefore changing. He is the initiator of and mediator in the learning situation, in which the students actively participate (Beswick, 1977:21). However, educational media should not be seen as a total substitute for conventional teaching methods, but should be regarded as just another strategy in the teacher's hands (Beswick, 1977:ix). The central aim in post-secondary education should be to help students to learn independently without the continuous guidance of their instructors (Enright, 1972:96).

Technological trends

Four recurring technological trends in educational technology can be isolated:

* Firstly, that because of technological advancement, separate stand-alone machines are being integrated into educational technology systems;

* Secondly, information will be stored in massive amounts which can be available in seconds and it will be multi-purpose as well as multi-dimensional - it can integrate videodisc, computer, telephone and cable technologies;

* Thirdly, the trend is to develop machines that can facilitate human interaction naturally and simply;

* Fourthly, the cost of storing and retrieving information in machine-form is rapidly decreasing (Butler, 1982b:68-69).

The modern student is visually and technologically more literate than the previous generation because of daily exposure to technology in every form. It is therefore easier for him to accept these technological advancements and their educational application. It is, however, more difficult for the older generation, which would include many older teachers, to come to terms with technology and they would need to be motivated or trained in the application of the newer educational technology. The multi-media library may be in a position to promote general acceptance and balanced use of educational media by encouraging progressive familiarity with the new materials and techniques in conjuction with books. Media innovations will be successful only when the academic staff has been persuaded that educational media are as legitimate as the traditional methods of teaching and learning by which they themselves were taught (Enright, 1972:147).

The modern student is m technologica literate th previous generations

2.1.3.2 EDUCATIONAL UTILISATION OF THE MULTI-MEDIA LIBRARY

The first stage in the development of educational technology was the era of creativity and invention. The next stage is the application of the theories in the service of education (Gordon, 1980:18).

The present challenge in educational technology i the applica of theories

The educational utilisation of media services depends largely on how these media services are "sold" to the users. For many of the users, students as well as teaching staff, educational media may be a novelty (Allen and Allen, 1973:66). The more knowledge and understanding the users have of the facilties, the more likely they are to utilise the resources available to them (Allen and Allen, 1973:13).

Utilisation depends on h the service "sold" to th users

The main facilitator of educational utilisation is the educational technologist/specialist. As part of the staff establishment of the multi-media library, he can exert his influence on all users - staff as well as students. This task of requires a wide range of human skills: an understanding of the politics of change; a knowledge of systems design; an understanding of the use and production of educational media; an awareness of what evaluation can and cannot do; a knowledge of what represents effective software; an ability to work with people (Diamond, 1980:51). Traditionally the educational technologist's function was largely problem-oriented, but to be really effective the application of educational media must be incorporated into a more systematic approach involving all the components of educational technology (Brown, Norberg and Srygley, 1972:355). Often exponents of educational technology forget that educational technology per

The facilita tor of educa tional utili sation is th educational technologist specialist se is not education. Only when educational technology is applied in proper educational perspective, does it comply with its objective (Butler, 1982a:66).

Preconditions for teacher effectiveness

Molstad (1983a:14) lists the following conditions of paramount importance for increased teacher-effectiveness using educational technology:

- Materials should be constantly evaluated and redesigned if necessary.
- Teachers should have a wide variety of educational media from which to select.
- Emphasis should be placed on quality rather than quantity.
- Equipment should be accessible for utilisation.
- Teachers require continual in-service training to keep abreast of new teaching media.
- A supportive infrastructure is needed to facilitate use - moral, organisational and financial support should be facilitated.
- Knowledgeable trained specialists in educational systems technology must be employed to manage the system.

All the above provisions can be accommodated by the multi-media library concept.

Further objectives of the MML.

Other services provided by the multi-media library include :

- Basic mounting facilities for pictures, maps and other graphic material;
- Overhead projection preparation and production facilities;
- Lettering for the preparation of posters;
- Duplicating facilities;
- Photographic services - to include 35mm, video and related services;
- Copying facilities - for pictures, slides, video and audio tapes (Lindeman, 1971:104-105).

Students can produce their own materials

If at all possible, provision should be made for students to produce their own materials. This facility serves three purposes:

- Firstly, it gives the student a different insight into the subject.
- Secondly, it can also provide a new source of reference material (Chibnall, 1976:53).
- Thirdly, if one wishes students to accept educational technology as an everyday mode of communication, they should become literate with non-print media just as with print (Gilkey, 1978:71).

In the final analysis the educational utilisation of all the components of the multi-media library rests on the relationship between the library staff and the users. Without a positive working relationship which leads to mutual co-operation and respect, the optimum realisation of the educational potential of the multi-media library will not be realised.

The user-
relationshi

2.2 DESIGN REQUIREMENTS OF THE MULTI-MEDIA LIBRARY

2.2.1 GENERAL

Media of all kinds, however defined, are moving irresistibly into academic libraries and the realities and economics of these materials are being better understood than was the case previously (Orne, 1982:3). Planning and design of libraries must be adapted to accommodate these changes.

Design and
planning must
accommodate A

The planning process, however, is not a straightforward one. The changes in educational technology that have occurred over the past fifteen years have contributed to the complexity of the procedure of education planning. In order to accommodate possible future changes, planning should be as flexible as possible. To facilitate this flexibility the library should become an arrangement of spaces, rather than of rooms (Enright, 1972:128).

Planning shou
be flexible

Future trends that can be discerned are the relative decrease in the space for storage of materials and the increase in space required for the reader, and the impact of the computer and related services on libraries (Thompson, 1977:14).

Future trends

Apart from the technological changes that are forcing a rethinking of the design of libraries, the modern movement is to accommodate man in all his individual variety. This is resulting in a more "human" library. The electronic age has put previously unavailable items at our fingertips and this fact has influenced design (Allen and Allen, 1973:103).

Libraries ar
becoming mor
user-oriente

The design should result in a "welcoming" place, with an environment condusive to learning. It should be comfortable, well-lit and be maintained at a relatively low noise level (Cabeceiras, 1978:234).

Atmosphere
should be
conducive to
learning

Centralised or decentralised facility

A prime criterion in determining space allocation for a multi-media library is whether the facility is centralised or decentralised. A centralised multi-media library makes provision for one large area for audio-visual media with possibly the provision of a media librarian or specialist. A decentralised facility advocates having spaces in several areas in close proximity to the materials being used (Cabeceiras, 1978:231).

Advantages of a centralised system

The advantage of a centralised system are :

* It offers better supervision and control possibilities as everything is in one area.

* It is multi-disciplinary and a librarian can specialise in the field of audio-visual media.

Advantages of a decentralised system

The advantages of a decentralised system are:

* It is adjacent to the resources being utilised.

* It facilitates easy access to other sources of information on the subject being investigated.

* If a system of subject specialists is being used, the user has access to a person skilled in a specific subject area (Cabeceiras, 1978:231-232).

Preconditions for optimal functioning of centralised system

A decentralised system can function optimally only if the users are just as conversant with audio-visual materials as with books. This condition will be fulfilled only through careful guidance, training and actual use of the material over a period of time.

Decentralised system is the ideal

Theoretically, the decentralised system is the ideal. Initially, however, the centralised system may offer a better opportunity for training of library staff as well as users, and for supervision and guidance of the users of the material.

2.2.2 READER STATIONS

Forms of reader stations

Reader stations for utilisation of the materials of the multi-media library include: language laboratories; audio-tutorial facilities as well as apparatus for viewing and observing; carrels with electronic study facilities; remote access information retrieval systems; computer terminals for computer-assisted instruction as well as dry carrels for reading or studying. The materials available in the multi-media library will determine the spectrum of reader stations available. The policy regarding centralisation or decentralisation will determine the distribution of the reader stations in the library.

Design aid

When designing the lay-out of reader stations one can make use of scaled-down cut-outs representing furniture and reader stations to facilitate the most economical space utilisation.

Seating
provision

Most studies indicate that the multi-media library should be able to seat 15%-30% of the student population (Penna, Foskett and Sewell, 1977:145) (Davis, 1971:60). The South African Post Secondary Education (SAPSE) norms for seating in university libraries is 1:4. Enright (1972:128) also regards 1:4 as an acceptable ratio.

Private boot

A limited number of lockable, small private study areas should be provided for masters and doctoral students.

Reader statio
ratio

The users' needs should determine the ratio between wet carrels, dry carrels and open reader stations.

For example, if the university is non-residential, a higher number of open reader stations in relation to the carrels will have to be provided, as more students will be using the library for studying. The courses and teaching methods will also have an influence. Some courses, especially those in the field of human sciences, lend themselves to the application of media. It must be added, however, that the needs of the users may change, especially if the application of the multi-media library is actively propagated. There must be careful monitoring of the use of the reader stations to establish changes in the pattern of use.

Utilisation o
reader statio

Reader stations for the usual reference works on closed access should be provided near the sections where such items are housed. Viewing or projection equipment can also be portable for use in the library and does not always have to be built into furniture (Lindeman, 1971: 99-100). The open plan lay-out offers an alternative where equipment such as video monitors and video recorders, tape recorders and micro fiche readers can be used under similar conditions as books or journals. Sound problems can be overcome by headphones (Aungle, 1975:78). If the open plan is used in conjuction with fitted-out carrels, the problem of expensive wet carrels would be solved. Even sound- slide programmes or sound-filmstrip programmes can be utilised in an open plan system, if use is made of portable rear-projection screens. "Walkman" type tape recorders which are relatively cheap can be utilised in the same manner for audio tapes.

Comfort of users

Reader stations should always be designed with the comfort and convenience of as well as the utilisation by the user in mind. These factors are of special importance as the users of reader stations of the multi-media library may be spending long periods in the library. This is also one way of combatting possible behavioural problems in libraries (Davis, 1971:60).

2.2.3 UTILISATION AREAS

Small group areas

To accommodate the need for small group viewing and discussion, provision should be made for these activities. This provision would relieve pressure on the other viewing/listening facilities in the library, as more than one person can be accommodated at a time; small group areas could be used for discussions and would prevent the disturbance of other users in the general study area(s).

Preview and small group areas

Because these areas would provide the teaching staff with a larger and more practical working area, they could be utilised for previewing programmes.

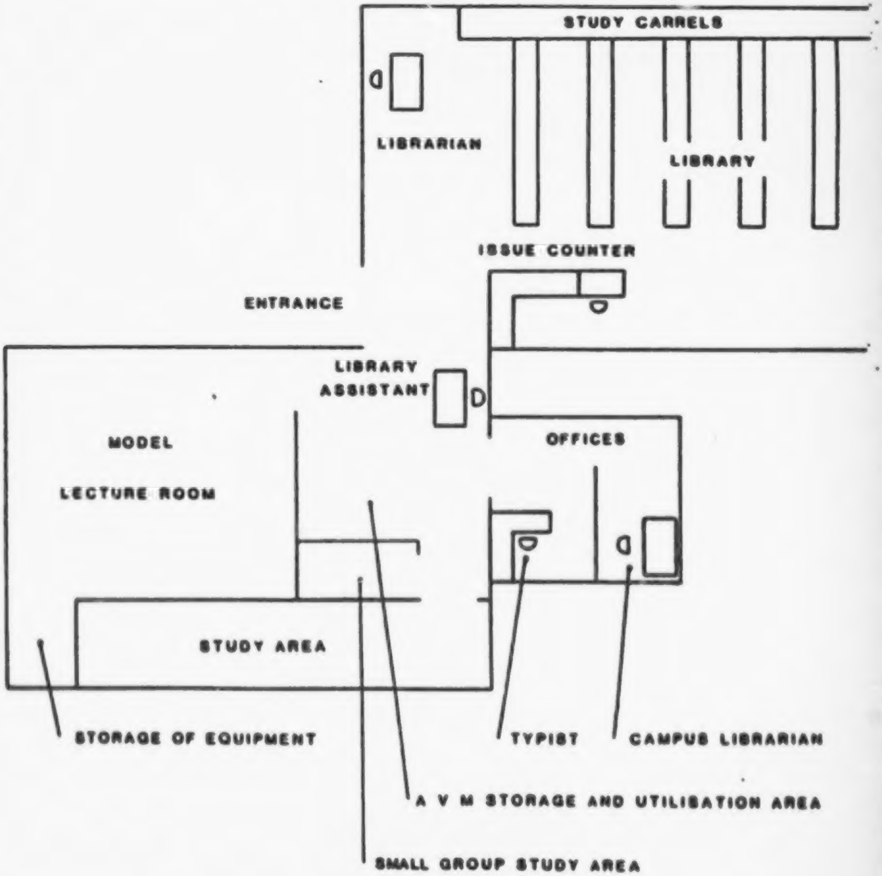
The areas for small group viewing should be large enough to accommodate five to fifteen students at a time. A review of the literature reveals that small group teaching usually involves between five and fifteen students.

Model lecture room

One area should be set aside to accommodate about 25 to 45 students which constitutes a medium group teaching unit (Brown, Norberg and Srygley, 1972:148) and it could contain the following facilities or items of equipment: a display case, peg-board, bulletin board, light box, flannel board, magnetic board, flip chart, sound recorder and playback, overhead projector, opaque projector, television receiver, television camera and lights, chalk board, tape-slide projector, tape-filmstrip projector, portable rear projector, 16mm film projector and a pull-down projection screen or any other equipment needed to convey any message of the audio-visual materials housed in the library. The general design of this model lecture room should be made as modular as possible so that the area can be subdivided by means of partitioning to accommodate smaller groups if necessary. For security as well as convenience, all viewing areas should be under the same roof and in close proximity to the reading areas.

UNIBO Resource Centre (Taung Campus)

Multi-media utilisation areas



Functions of the model lecture room

The model lecture room can be used to introduce much of the audio-visual equipment to the lecturing staff, and so can also fulfil a motivational role. The sheer convenience of having equipment permanently set up also makes easier utilisation possible. The area could also be reserved for in-service training workshops (Peterson, 1975:96-97).

2.2.4 STORAGE AREAS

The multi-media library has to make provision for storage of hardware as well as software.

Storage provision for hardware

The hardware can be stored permanently in certain areas, for instance in carrels or viewing areas or, in the case of more portable equipment such as tape recorders or slide projectors, in a secure area for utilisation on request by users. A policy regarding the use of equipment outside the library must be formulated and all users should be informed regarding the policy.

Storage provision for software

Several options are open to the librarian concerning the storage and retrieval of the software: full integration with the book stock, partial integration, total segregation from the book stock or, in some cases, storage in a separate building.

Storage system selection

The criteria for selecting a storage system will reflect the needs of the users as well as the management problems of the librarian. Any decision taken will have to be a compromise as a totally secure system would preclude free availability (Fothergill and Buchart, 1978:99).

The development of storage provision for software in libraries

The inclusion of audio-visual materials in libraries has passed through several stages. Initially they were kept behind lock and key and library staff placed the material in the hardware. During the next stage of media collection, storage stacks or cabinets of such materials grew alongside the book stacks, but each collection was still separate. This arrangement resulted in the user having to decide beforehand which medium he intended using. The inconvenience was aggravated if the catalogue was not integrated. Recognition of these drawbacks has encouraged library organisations to take the final logical step of intershelving the different media where physically possible (Fothergill and Buchart, 1978:199).

Browsing of materials not included on the shelves can be accomplished by placing spine-marked "dummy books" on the shelves in the place where the non-book item would have been. This solution can be applied where partial integration is preferred or in cases where it is not physically possible to integrate.

Dummy books r.
facilitate
browsing

Most audio-visual materials can be placed in book-like commercial packaging to facilitate convenient inter-shelving. Commercial packaging can also protect the software. Physical conditions such as fluctuating temperatures, high humidity, excessive light and dust can damage most materials and must be controlled (Aungle, 1975:78).

Commercial
packaging

2.2.5 WORK STATIONS

The activities of the multi-media library do not only provide for the preparation of materials for the dissemination of information, but also provide for the production of materials. Work stations must also be provided for technicians responsible for the repair and maintenance of the equipment. The audio-visual materials will make additional demands on the technical service area as many materials might have to be repacked in a more practical and uniform packaging.

Provision mus
be made for
production
areas

The production area usually makes provision for a darkroom, a preview room, an audio-recording studio, a television production area, a storage and repair area or for any other service that the philosophy of the institution institutes (Allen and Allen, 1973:113-114).

Components of
the productio
area

The most important requirement for the production of materials is space. The areas need not be large, but should be well-planned, and open and uncluttered to permit flexibility in use. Peripheral working surfaces are needed which can be most economically provided by workbenches set around the walls with storage cupboards built-in beneath. This kind of surface intrudes very little into the room and yet provides a good area for laying out materials. It is practical to make use of free-standing units as they involve the minimum amount of fixing and, if desired, their arrangement can be altered. Other equipment should include a drawing board and a fully equipped photographic studio and darkroom (Chibnall, 1976:48-49).

Design
requirements

The provision of an area to accommodate users who want to produce their own materials should be established in close proximity to the official production area to facilitate supervision.

User producti
facilities

2.3 EQUIPMENT, FURNITURE AND FITTINGS OF THE MULTI-MEDIA LIBRARY

Aspects of the process of selection

The proper selection of equipment and furniture vitally affects the utilisation as well as the appearance and atmosphere of the multi-media library. If the director is not personally involved with the immediate selection, he is the co-ordinator of the policies of selection with the goals of the institution (Allen and Allen, 1973: 47). He can make use of the professional services of architects and interior decorators or other experts in related fields to assist him in his task. If the showrooms of reputable companies in the field are in close proximity, these may be visited. Other multi-media libraries can be visited or contacted for advice.

Carpets

Carpets are decorative, require little maintenance and create a pleasant atmosphere. In addition, they prevent noise before it begins, and therefore installing carpets makes more sense than trying to trap noise in the ceiling or walls after it has already proved to be a distraction (Davis, 1971:59).

Control of light

The planning of the lighting is also of importance in the areas where audio-visual materials will be utilised since such equipment requires either total darkness or diminished lighting. Provision should therefore be made for darkening. The decision regarding lighting should be based upon the comfort that can be afforded to the user by obtaining the correct relationship between brightness, contrast and glare (Allen and Allen, 1973:120). Window coverings such as blinds or curtains also play a part in the control of light in the study areas.

2.3.1 HARDWARE

Software determines the acquisition of hardware

Selection of hardware or equipment is based on the software stocked by the library and equipment should be chosen which best serves the utilisation of the software. As new formats of software are added to the stock, it will often become necessary to acquire new items of hardware (Harrison, 1979:232). Careful scrutiny of orders must be executed to prevent the acquisition of software that has no retrieval facility by the hardware stock. A written policy statement should be issued regarding formats eg. 8mm, 16mm, cine film or the different video formats: 0,5 inch BETA, VHS; 0,75 inch UMATIC etc.

Software used in the library need not necessarily originate from own holdings, but can be borrowed from outside sources. If there is enough demand for such software, the relevant hardware may be acquired, even if the library itself does not own sufficient software to justify such a purchase.

Hardware must be provided f software borrowed fror outside sourc

When acquiring hardware two important aspects to consider are selection and standardisation. Multi-media usually involve specialised equipment such as language laboratories or television equipment. Experts in the various fields can be co-opted to assist with the selection process (Brown, Norberg and Srygley, 1972:228-229).

Selection an standardisati of hardware

Various publications in the fields of audio-visual librarianship, librarianship, educational/instructional technology and general education can be used in the selection process. Visits to educational exhibitions such as INSTRUCTA which is hosted on an annual basis by the Rand Afrikaans University in Johannesburg, South Africa, as well as contact with manufacturers or distributors of educational equipment can introduce the director or person(s) involved in the selection process to the latest developments in the field.

Publications and visits ca facilitate the selection process

When selecting equipment the following criteria should be applied:
- purpose (educational justification)
- cost comparisons (to establish cost effectiveness)
- extent of usage
- skill needed for operation
- life expectancy
- standardisation (regarding different formats)
- maintenance
- new developments in the relative fields (Cabeceiras, 1978:264-267).

Criteria for selection

2.3.2 FURNITURE

The modern tendency in physical library planning is to provide more seating for students than previously. The function of the academic library has changed radically over the past fifteen years and the user-oriented philosophy is reflected in the provision of more facilities for independent study as well as the creation of an environment conducive to study. This has had considerable influence on the library furniture industry and is reflected in the catalogues of such companies.

Provision of more seating

When selecting furniture, it is important to select each item for utility by the user in mind as the multi-media library usually

User comfort

requires longer periods of user-activity than the more traditional libraries.

Higher expectations

The level of comfort and convenience in library accommodation has also been rising steadily and present-day users expect much higher standards than were provided in the quite recent past (Thompson, 1977:61).

Furniture selection

At least seven prime factors can be identified in the process of furniture selection. These are:

* design;
* comfort for the user;
* adaptability - this applies particularly to shelving provision that also has to accommodate software;
* ease of adjustment;
* repairs;
* safety;
* service life (Bock and La Jeunesse, 1977:26-29).

Shelving

Most non-book material can be stored on conventional shelving, although certain formats may require repacking. There are some formats that may require specialised treatment in the form of shelving, due to their particular physical properties. The holdings of the library would determine the furniture needed in this area.

Hardware shelving

Furnishing to accommodate the storage of hardware should include adjustable shelving in racks sufficiently large and strong enough to store all equipment as well as bulletin boards on which to post loan-schedules (Brown, Norberg and Srygley, 1972:53-54).

2.3.3 CARRELS

Carrels: category between furniture and equipment

Carrels fall in a category somewhere between furniture and equipment. A dry carrel can function as a piece of furniture, whereas when a carrel is fitted permanently with a piece of equipment, it also acts as a storage facility and can be considered a fixture.

Function of carrels

When non-book media first appeared in libraries, there was some anxiety about the disturbing effects on book users. This resulted in the rapid development of the enclosed or semi-enclosed carrel (Fothergill and Burchart, 1978215). By means of the carrel the multimedia library reinforces individual independent study as the fundamental learning model (Shores, 1973:55).

No single room should be devoted exclusively to carrels. The carrels should rather be scattered throughout the building and could be placed in small clusters to distribute utilisation more evenly and to prevent traffic build-up in one area. Also, smaller areas facilitate easier group-work, resource sharing and privacy and can avoid a monotonous interior design (Brown, Norberg and Srygley, 1972:152-153). Carrels may be single units or combinations of 2,3,4,5,6 or even more units. The Dundee College of Education has developed a very successful type of carrel known as the Dundee Carrel. This design interlocks four carrels in a swastika-like formation with a central core which carries the wiring in four directions. A further development in carrel design is a carrel produced for the Plymouth Polytechnic which has a sliding top that acts as a shield against interference from overhead lighting and also locks up the carrel when it is pulled out further (Fothergill and Buchart, 1978:216).

Design and layout of carrels

To equip all carrels with hardware would be space intensive and expensive. After a study of carrel needs has been made, the anticipated needs must be fulfilled by carrels fitted with the appropriate equipment (Cabeceiras, 1978:233). The majority of the carrels will serve as additional study facilities. In their design as well as in the design of the study area, provision must be made for wiring, should the demand for wet carrels increase in the future.

User needs wil determine wet carrel provision

Carrels can be designed to utilise tape recorders, record players, teaching machines, typewriters, micro-film readers, small cine projectors, filmstrip projectors, slide viewers and television monitors. Some carrels may be fitted with a two-way communication system with media specialists who may also utilise it for monitoring purposes (Fite, 1971:79-80).

Utilisation possibilities

If Computer Assisted Instruction is applied, carrels need to be equipped with devices such as a teletypewriter, page printer, screen, electronic lightpen, image projector, tape playback, earphones and speaker and these carrels should be linked to telephone lines for access to the computer network (McVey, 1978:75).

Computer Assisted Instruction

In a learning environment aural distraction may be a more critical factor than visual distraction and therefore sound insolation (or reduction) is very important. This can be facilitated by sound-proof areas, but the most practical method is to use carrels equipped with good quality earphones. The earphones must be comfortable and rela-

Reduction of aural distraction

tively lightweight. Medium-size headphones can be used for periods of up to six hours. Sanitation practices that are recommended are regular swabbing of headsets with a mild antiseptic solution (Spangenberg, 1975:322).

Design requirements for video equipment

Carrels fitted with video equipment should provide a space of a minimum of four widths of the screen between the user and the screen (Holstad, 1983b:52). As there are relatively small screens available on the market, this stipulation should not pose a problem.

The carrel should be designed to withstand some abuse. The surface should be scratch-resistant and equipment should be secured firmly. Materials used in the construction should be fire resistant (Spangenberg, 1975:330).

2.4 MULTI-MEDIA LIBRARY SERVICES

2.4.1 PUBLIC SERVICES

2.4.1.1 CIRCULATION

Circulation policy

The use of equipment and materials depends greatly on their accessibility (Shaver, 1978:65). A written policy statement should be issued on the circulation procedures and on the levels or categories of users allowed to borrow material. Since the scheduled lending period for media is usually much shorter than that for books, advance scheduling should be applied (Davis, 1971:97-98).

Circulation of hardware

Circulation of hardware usually requires considerable storage space and the hardware can be distributed from a specialised point, possibly near the storage area. Circulation points should be limited as far as possible. The circulation system should be designed for accountability of materials, but with as little paper-work as possible, both for the users, and the library staff (Bock and La Jeunesse, 1977:4).

2.4.1.2 CATALOGUE

Catalogue provision

The catalogue provides the bridge between the resources and the users. The public catalogue, whether in card, book, micro or computer format will need sufficient space for card catalogue, micro-readers/ micro-printers, book catalogue sets or computer terminals, with accompanying space for users to sit or stand as required. If materials are circulated on several floors, information access will be needed at those points too (Bock and La Jeunesse, 1977:4).

The catalogue entry on file must contain full details of materials described as some audio-visual materials are not browsable and the user must be given full assistance in his search for information.

Descriptive catalogue entries

2.4.1.3 INFORMATION

Information services can be rendered by means of an information desk, sign systems, notices, pamphlets, tape-slide or video programmes as well as through all library staff members.

Ways of relaying information services

Information needs of the user must be anticipated and established and should be met with the most appropriate medium.

Information needs to be anticipated

As the multi-media library is a relatively new concept, it requires much patience and understanding to educate the users. Great care must be taken to gain the confidence of the users so that they should feel free to approach any member of the library staff with their problems.

Confidence of the user must be gained

2.4.1.4 READER STATIONS

To facilitate the utilisation of the software, provision must be made to render this service to the users. The utilisation can be facilitated in either of two ways: firstly, carrels can be equipped permanently with various devices for utilisation, or secondly, equipment can be borrowed by users and used in other areas designed for utilisation. These areas may include carrels as well as specially designed larger areas of varying size.

Utilisation of software

Private study booths can be provided for certain categories of users such as postgraduate students.

Study booths

Provision should be made for users with special needs, such as the physically disabled.

Physically disabled

2.4.1.5 MATERIALS STORAGE

Stacks, although originally designed for books, are now being used for multi-media materials, including video tapes, audio cassettes, records, films and pamphlets. Commercial storage containers that are

Storage facilities

compatible to storage on shelves can be obtained. Certain formats such as posters, charts and maps need flat files.

Browsability

If the collection is interfiled as far as practically possible, the collection offers browsability and added convenience to the users, as all material on a certain subject is filed in one place. It is not practical to interfile all materials. Some material offers a high security risk factor and some material, due to its physical form, has to be housed separately.

2.4.1.6 EQUIPMENT

User instruction

The equipment is stored in a secure area preferably near the main study area. The issue clerk must be trained to instruct the user in the operation of equipment issued.

Equipment should always be checked before and after use.

2.4.1.7 MISCELLANEOUS PUBLIC SERVICES

Typewriters and photo copiers

Provision can be made for typewriters to be permanently installed in carrels. Coin-operated photocopying machines can be installed in certain areas.

2.4.2 TECHNICAL SERVICES

Makes library materials accessible

The technical services make all library material accessible to the users and include the selection and acquisition, cataloguing, indexing, classification, the physical preparation, binding and repairs to as well as servicing of material (Lancaster and Joncich, 1977.,).

Computerisation

Many of the duties of the technical service department can be made easier by using a computer system. Such a system can also save space and time.

2.4.2.1 ACQUISITIONS

Written policy

A written policy on the treatment of the non-book formats as well as procedure manuals should be drawn up.

Space should be provided for holding records, order records, invoicing records, bookkeeping records, the storage of bibliographic tools, micro-reader and computer terminal if a computer service is available.

Space provisi

2.4.2.2 PROCESSING, CLASSIFICATION AND CATALOGUING

Enough stora-
space

In the processing area enough storage space must be provided for cards, issue pockets, labels and multi-media boxes, and sufficient table-top working space should be available.

Physical preparation

The physical preparation of materials should occur before the cataloguing and classification processes. Processed materials are more easily stored and handled. Often materials require extra processing to make them easier to handle or store.

In-house cataloguing

A decision regarding in-house cataloguing must be made as many publishers of audio-visual materials furnish catalogue cards (Bock and La Jeunesse, 1977:5).

Classification

It is advisable to use the same classification scheme for all materials as this makes retrieval and storage easier. It may be worthwhile repeating the physical form designator of the medium above or below the classification mark on the catalogue card to inform the user of the format of the medium being described (Aungle, 1975:76).

Integrated catalogue

In a review of the literature, most writers agree on an integrated catalogue, although the full integration of the collection is debatable. In a recent survey of 210 institutions of higher education in Britain, it was reflected that 74% found it practical to integrate the catalogue (Heery, 1983:187).

Cataloguing rules

A combined effort by British, American and Canadian librarians resulted in the revision of cataloguing rules for audio-visual materials in the AACR2. The initial reaction to these rules has been favourable and they provide a useful basis to cataloging of audio-visual materials (Harrison, 1979:222).

2.4.2.3 INVENTORY CONTROL

The shelf-list represents the total holdings of the library and can be in the form of a card file, a punched card or a computer-tape file. It is practical to divide the shelf-list in format groups eg. books,video

Shelf-list of software

tapes, tape recordings etc. The shelf-list provides a simple means of inventory checking to determine missing items or the current size of the collection. If an item is removed permanently from the collection, information about it will also be removed from the shelf-list. These items may be recorded in a separate list (Brown, Norberg and Srygley, 1972:179).

Hardware inventory list

Hardware must also be reflected in an inventory list containing full details of the equipment, serial number, brand name, supplier, guarantee particulars, date of purchase, or purchase order number, price etc.

Functions of inventory control

The inventory control system should :

* be a centralised responsibility of the multi-media library;
* list all pieces of educational support equipment excluding laboratory equipment or classroom furniture;
* be the designated responsibility of one person;
* be maintained on a regular basis (Bock and La Jeunesse, 1977:6).

2.4.2.4 MAINTENANCE AND REPAIR

The choice for maintenance and repair is between permanent technical staff in-house and making use of outside facilities.

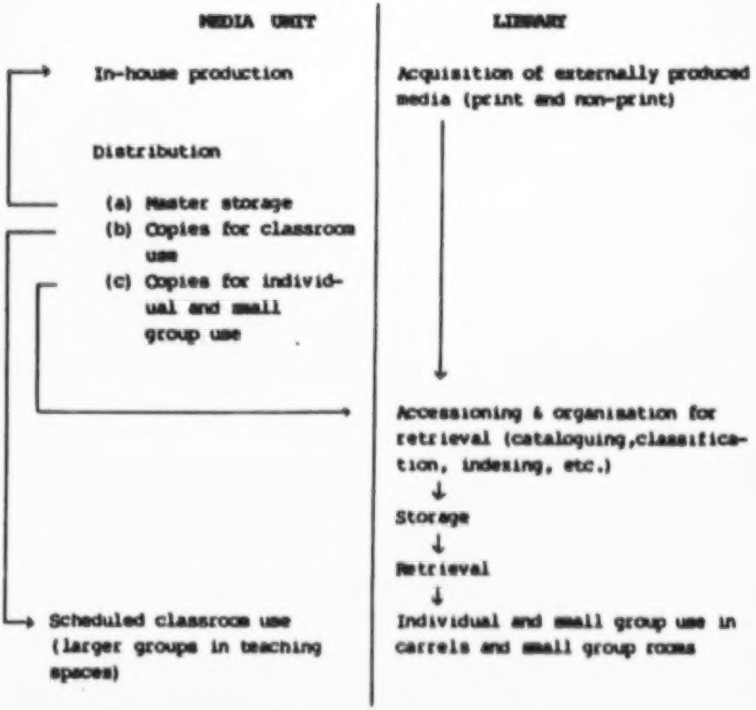
In-house technical staff

Although the financial outlay is substantial for the appointment of a technician, it is well worth the expense in the long run. The technician can specialise in equipment in use, is always at hand in emergency situations, can give technical advice with purchases and can save money by maintaining equipment on a regular basis to prevent major breakdowns.

He will require basic tools, work and storage area, as well as specialised testing equipment to function optimally.

2.4.3 PRODUCTION SERVICES

The following flowchart can serve as an illustration of flow of software/materials in the multi-media library:


MEDIA UNIT
LIBRARY
In-house production
Acquisition of externally produced media (print and non-print)
Distribution
(a) Master storage
(b) Copies for classroom use
(c) Copies for individual and small group use
Accessioning & organisation for retrieval (cataloguing, classification, indexing, etc.)
Storage
Retrieval
Scheduled classroom use (larger groups in teaching spaces)
Individual and small group use in carrels and small group rooms

FLOW OF SOFTWARE MATERIALS IN THE MULTI-MEDIA LIBRARY
(Adapted from Lor and Welch, 1983:88).

2.4.3.1 REPROGRAPHICS

Equipment in this area should include one or two photocopiers capable of making projectable large transparencies or instant paper copiers with collating facilities as well as spirit or offset duplicators or printers. If no micro fiche/micro film reader/printer is utilised elsewhere, at least one reader/printer using the dry process should be kept in this area. Other items or services which may be kept are : paper cutting equipment, a heavy duty stapler, paper punches, spiral or glue binding equipment, an electric stencil maker and a reproductive camera (to be installed in the darkroom).

Items of equipment and services

Enough space should be provided for collating or stapling duplicated materials.

2.4.3.2 GRAPHIC/PHOTOGRAPHIC SERVICES

This service is provided by qualified persons specialising in graphics and photography. Their function is to supply materials or services in support of teaching as requested by the teaching staff. These materials and services could include booklets, general graphics, handouts, video productions, audio tapes and/or sound tracks, editing of film and the developing of photographic film and slides.

Copying of master video and audio tapes, the transfer of 16mm film to video format and other related services in preparing materials for utilisation are the responsibility of this section.

2.4.3.3 STUDIOS

The model lecture room (as described under 2.2.3) can double as a television studio. One of the small group areas can also be acoustically treated for sound-proofing to serve as an audio studio.

Provision must be made for a booking system for these areas.

2.4.3.4 STORAGE

Storage space must be provided for stationery as well as for many lesser used but essential items, such as partitioning, props, portable television lights, spare cameras and reserve equipment, including batteries.

2.4.4 RELATED INSTRUCTIONAL SERVICES

Training of users

The utilisation of the media services will depend largely on how they are "sold" to the users. To many of the users, staff as well as students, the application of educational media is a novelty and they therefore have to be trained in the utilisation thereof.

2.4.4.1 USER INSTRUCTION

Marketing of services

User instruction can be regarded as a marketing practice involving:
* determining the educational needs;
* determining how objectives can be best be met;
* determining an appropriate programme to meet the objectives and communicating this programme to the users (Kies, 1978:86-87).

Evaluation of the instruction programme by the user

It is important that at the conclusion of the learning experience the learner should feel that he is able to accomplish something and he should have the confidence to apply his knowledge. There should be continuous evaluation of the user instruction programme (Laburn, 1984:94). To determine whether the programme is meeting its objectives, this continuous evaluation should be executed by users as well as by library staff (Noble, 1980:109).

The programme of user instruction can be either formal or informal.

Informal instruction

Informal instruction occurs in the day-to-day contact between library users and library staff. It is, however, important that matters raised during the informal contact be communicated to management to identify possible future information needs of the users. The attitude of the librarian will be of cardinal importance in the informal instructional process. During each occasion of contact between the librarian and the user, the librarian should make it clear that he is offering a service to meet a particular need (Heathcote, 1975:43).

The formal instruction should be well planned

The formal programme for library orientation for the students should be well planned. If the library orientation programme is planned on an ad hoc basis, the librarian would be placed under continual pressure and this would lead to a condition of continual dependency of the user on the librarian (Noble, 1980:72). There are various systems of approaching user instruction:

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Various systems of user instruction

- A specialist tutor-librarian may be appointed (Noble, 1980:77) or the duty may be assigned to a librarian with appropriate talents, training and interest.
- The task may be shared between subject specialists under co-ordination of a senior librarian.
- A combination of the two alternatives mentioned above (Hammond, 1975:84-85).

Graphics and sign systems

Formal instruction can also be accomplished by information graphics and sign systems placed in strategic areas. Sign systems and graphics derive their importance and usefulness from the needs that the users experience as they search for information. The same kind of analysis and objective-setting that form part of the planning of a lecture or audio-visual presentation should be applied in designing effective graphics (Kupersmith, 1980:54).

Instruction of teaching staff

The instruction of the teaching staff can be done on an individual basis by subject librarians. New staff members should be contacted and a concerted attempt should be made to explain services to them. If staff members are motivated and convinced that the library can meet their needs, they will transfer the need for library services to the students.

2.4.4.2 INSTRUCTIONAL / STAFF DEVELOPMENT

On a planned basis by trained experts

The application of educational technology in practice can be considerably accelerated if it is done on a planned basis by trained experts. The standard of lecturing is improved, the professional development of lecturing staff is enhanced and the student ultimately reaps the benefit, as he is exposed to the best teaching and learning methods.

Services

Services rendered to facilitate the above would include the following:

- assistance in lecture preparation/presentation;
- the application of educational media in lectures and group teaching methods;
- micro-teaching as well as forms of lecture evaluation;
- study skills;
- the educational aspects of materials production and the lay-out, editing and presentation of materials;
- general methodology of teaching;
- the design and development of self-instructional materials.

Staff development is a very sensitive field which makes special demands on its practitioners. The staff development officer should be tactful, and sensitive and should possess communicative talents over and above his technical and professional expertise.

Demands made
[illegible] of
staff evalu-
ation

2.4.4.3 LEARNING LABORATORIES

Language laboratories are used mostly in the instruction of language courses, but they can also be applied in education, music and drama courses and in the training programme of any faculty whose students will be involved in public speaking.

Used mostly :
Language
instruction

2.5 COLLECTION BUILDING

Most of the criteria that apply to the selection of books, apply to the selection of audio-visual materials. Criteria which do not correspond with those used in book selection are usually concerned with the standards of production, the choice of media to be used (Shifrin, 1973:37), or the availability of the facilities required to make the information accessible. Selection of audio-visual materials places an added responsibility on the librarian to gain knowledge of and insight into media application, the educational needs of the user, sources of available material, selection aids and the pricing and quality standards of audio-visual materials.

Mostly the sa
criteria as fr
books

In most cases with audio-visual materials, the selection will be expressed in terms of the needs of the lecturing staff. The librarian is the bibliographic expert and the manager of materials, but he can make a more positive contribution to the selection process if he has a sound educational insight as well (Aungle, 1975:73).

Role of the
librarian

Materials can be acquired from several sources:

- * The production department in the multi-media library would be an important source. It is important, however, to apply the same qualitative standards to locally produced materials as to commercially obtained materials.
- * Exchange or off-air or off-television recordings if copyright has been obtained.
- * Donations.
- * Commercially produced materials

Sources of
materials

Previewing

It is advisable always to attempt to preview material before purchase, but many companies do not allow such services outside the UK and the USA. If no such facilities can be obtained, a librarian can make use of previews or abstracts in journals (Shifrin, 1973:39), such as "Visual Education","Audio Visual Librarian", "Audio-Visual", "Educational Libraries Bulletin" and "Science Books and Films."

Other selection aids are the catalogues of publishers and producers as well as visits to educational exhibitions.

The stock, once established, needs continuous attention. Videos and audio tapes need to be played periodically to preserve their quality.

Weeding

Periodic weeding has to take place and ephemeral or obsolete material has to be withdrawn. Without a sound knowledge of the curriculum, this task will prove to be even more daunting to the librarian, even if the assistance of faculty members can be co-opted. Enright (1972:135) regards the weeding process as being even more costly and laborious than the selection process.

2.6 ADMINISTRATIVE ASPECTS

2.6.1 ORGANISATION AND MANAGEMENT

Management

Management is the business of getting things done by and with people in formally organised groups. The end result of management is the fulfilment of objectives, and not merely the devising of procedures and techniques to achieve these ends (Hicks and Tillen, 1977:80,81).

Various experts form part of the organisation and combine to set objectives

The organisational structure of the integrated multi-media library includes experts from the library, educational, production, technical and clerical fields. The setting of objectives as part of the planning process should then be a combination of expertise of all sections. It would be exceptional if the manager of the multi-media library were to be an expert in all these fields.

MBO leads to greater motivation

A system of management by objectives (MBO) whereby objectives can be set by superior as well as subordinate managers and in which the execution and evaluation of objectives is approached as a team effort lends itself very well to implementation in the multi-media library (Stueart and Eastlick, 1977:37). A system of MBO leads to involvement and consequent motivation on all levels. Without motivation by and the enthusiastic support of the exponents of the multi-media library, the concept of the multi-media library will not be fully realised. The philosophy of the multi-media library will only be actualised by a self-motivated staff. The team-spirit which is created by MBO is condusive to self-motivation and consequently the staff will require less supervision.

Guidelines f. the organisation of the MML.

Lor and Welch (1983:101) provide the following guidelines on the organisation of the integrated multi-media library:

* the organisational structure should be flexible;
* the organisation should not be static - it should be allowed to evolve, and a process of evolution can develop if goals and objectives are evaluated and reformulated;
* it is immaterial whether the director is a librarian or a media specialist - he should possess the necessary management skills;
* there should be a distinct emphasis on the team approach cutting across the structure of departments, so that a matrix management structure should develop.

The MML consists of two components

In essence the multi-media library consists of two components:

* the library component responsible for the acquisition of all materials, the provision of the technical services, utilisation services as well as and information services;
* the media component responsible for educational development, media production, central purchasing of hardware, hardware repairs and maintenance, hardware inventory, hardware booking and circulation, film rental and master copy collection (Lor and Welch, 1983:87).

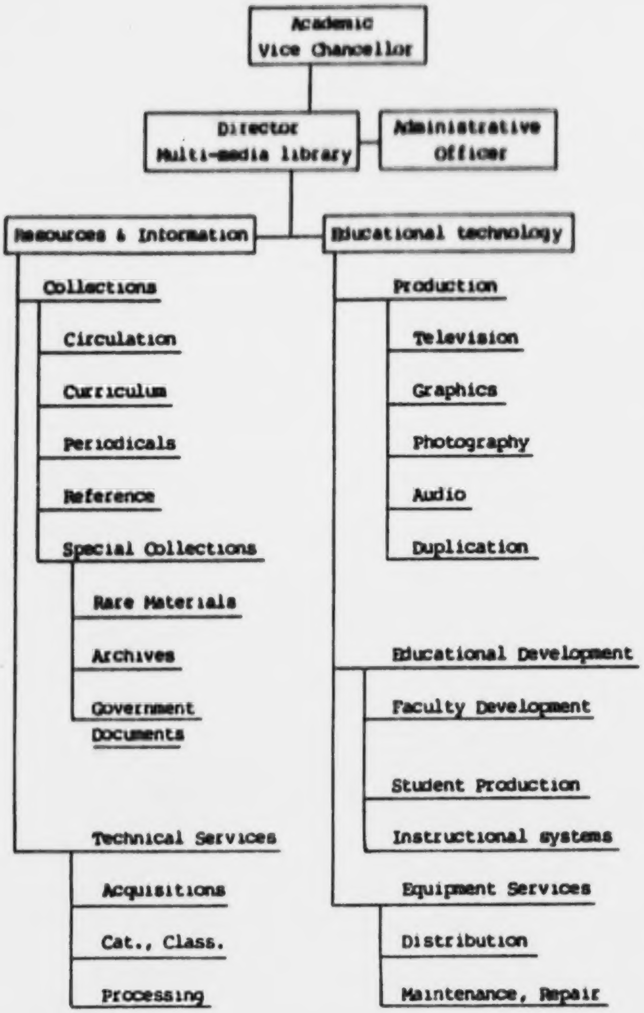
Overlapping o
technical services

Some overlapping may occur in the technical services, circulation, ordering and administration, as well as in the duties of lower grade workers and in the responsibilities of the media librarian, if such a person were to be appointed.

The heads of the two units in the integrated model have parallel positions in the organisational scheme and should both report directly to the director.

Organisation chart

The hierarchial and organisational structure of individual institutions will depend largely on the size of the multi-media library and the extent of the services offered. The following organisational chart may serve as a guideline, illustrating the main functions of the components of the multi-media library and their inter-relations:



Adapted from : (Burlingame, Fields and Schulzetenberg, 1978:51).

2.6.2 STAFFING

There are a few general principles that can be applied to the staffing of the multi-media library. However, due to the fact that the multi-media library is pertinently user-oriented, each institution may wish to establish its own additional criteria according to its own objectives and needs.

The complexity and wider range of services offered by the multi-media library makes staffing more complex than is the case in the traditional library. Additional skills are required and additional demands are made on staff. To meet the more specialised and technical aspects of the multi-media library, specialists in diverse fields will have to be employed. Not all staff need be specialists in educational media, but the philosophy underlying the implementation of the multi-media library would make additional demands on those librarians who have direct contact with users. These librarians would be expected not only to dispense learning materials, but also to become active participators in the learning activity itself (Enright, 1972:125-126). Such librarians would not be able to afford to stagnate, and would be required to keep pace with new and rapid developments in the educational technology field. They would be expected to demonstrate new equipment and to have a basic knowledge of the educational application of at least some of the software. For librarians not interested in non-book materials or lacking the talent and knowledge necessary, other categories of professional activities exist.

Wider range of services make staffing requirements more complex

The staff of the multi-media library can be categorised as follows:

* Administration

Duties carried out by the administrative staff include management, planning and supervisory activities and will involve the senior management staff such as the director, the head of the library, the head of the audio-visual media unit and the administrative officer.

* Professional staff

The professional staff serving in the library component to a great extent bear the responsibility for the realisation of the objectives of the multi-media library. Such staff need the qualities of leadership, sound judgement, initiative, intellectual curiosity, resourcefulness and the ability to work with people (Allen and Allen, 1973: 32).

Staff categories

The professional staff of the media unit are responsible for the implementation of educational technology by the teaching staff and students.

A combined post is that of the media librarian. He is a person with dual training/expertise in the field of library science as well as in the field of educational technology.

* Support staff
The function of the support staff involves performing routine tasks, housekeeping duties and clerical duties.
Paraprofessionals and even student assistants can be utilised in this supportive role.

* Technical staff
The technical staff are responsible for the production of materials, the repair and maintenance of equipment, and they can be utilised for the distribution of equipment as well as for user training in the operation of the equipment.

In-service training

An on-going programme of in-service training should be maintained to motivate and to equip all multi-media library staff members better for their respective tasks. The director himself could be responsible for this programme (Allen and Allen, 1973:21). The educational technology component could be involved in the programme and outside experts in various fields such as management, industrial psychology, architecture, library science or any related field from which staff could derive benefit could be requested to participate.

Induction of new MML staff

All new staff should be introduced to the objectives of the multi-media library. In-service training programmes in the particular area of the multi-media library where they will serve, as well as rotating staff in various departments within their frame of reference may form part of the induction programme.

Job descriptions

Detailed job descriptions defining the tasks and the relationships in the hierarchial structure of the multi-media library, as well as the standard of education or expertise required should be issued to all library staff members (Stueart and Eastlick, 1977:88). This procedure would prevent confusion and lack of purpose, especially for a person who has been newly appointed.

2.6.3 FINANCE

The unified budget of the integrated multi-media library should be controlled by the director. He may be assisted in the administration of the budget by the administrative officer.

Hicks and Tillen (1977:128) isolate four essentials of good budgeting:
*"effective organisation;
* administrative support;
* effective accounting;
* research".

Four essentia
of good
budgeting

Budgeting is a means of planning for efficiency and economy. If the multi-media library has opted for an MBO system, budgeting is also influenced. MBO has the essentials of programmed budgeting, namely planning expressed in terms of goals and objectives, and evaluation in terms of the attainment of goals and objectives. Budget planning begins with:
* establishing goals and objectives;
* presenting alternatives;
* identifying the activities that are necessary for each programme;
* evaluating the result so that corrective action can be taken, if necessary (Stueart and Eastlick, 1977: 164-166).

Budget plann

To select appropriate objectives, one has to set priorities.
* Of primary importance are those items in the budget which are most essential to the primary goals of the multi-media library and without which the operation of the library would cease.
* Next on the list are those objectives which relate most directly to the improvement of the library, but which will not endanger the continuance of service to the user should they not be implemented.
* The lowest priority should be given to those objectives which are considered desirable, but not essential, and which could even be postponed (Hicks and Tillen, 1977:128). All objectives should also be viewed in terms of short, medium and long term effects on the management of the multi-media library.

Priority
setting in
budgeting

The measure of adequacy of library financing lies in its ability to finance the service which meets the needs of the users. It implies that the needs should be measurable. It is essential that machinery should exist for users to express their needs, to complain about inadequacies and to make known new requirements arising out of

The needs of
the user sho
be measured a
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mine the budg

additional needs. It is therefore essential that the multi-media library has contact with the users through various committees and bodies, such as the university senate, faculty or departmental meetings and the library committee. Avenues should also be created through which complaints or suggestions can reach the multi-media library management (Higham, 1980:19).

There are several items that will make particular demands on the financing of the multi-media library and which must be kept in mind during the planning process:

Particular demands on the MML as opposed to the traditional library

* Equipment is expensive and prices must be compared before purchases are made. Equipment should be maintained and about 10% of the initial cost should be allowed for maintenance. Provision should also be made for full insurance of equipment, especially if the equipment is to be used outside the library building. There should be provision in the budget for the complete replacement of a piece of equipment after 5 to 7 years (Fothergill and Buchart, 1978:225-226).

* Some magnetic security systems may damage magnetic tapes and a compatible system should be used.

* Many audio-visual materials will require repackaging in standardised packaging and this process can be cost intensive.

2.7 CONCLUSION

The concept of the multi-media library is not a static one and can evolve from the segregated model, through the partnership model to the totally integrated model, which is regarded to be the ideal model since the users' needs dictate.

It is the librarian who has to interpret the needs of the users and to translate them into services.

Only if the librarian is aware of technological developments can he become involved in and have some measure of control over the process of change. If he, for whatever reason cannot or will not take up the challenge, he will not be able to render the potential of service to his users. The lesson of evolution is real enough - if you do not adapt, you risk extinction. The loser, in this case, will be the user.

3. BACKGROUND TO THE DEVELOPMENT OF UNIVERSITY LIBRARY SERVICES IN THE SOUTHERN AFRICAN THIRD WORLD

3.1 INTRODUCTION

This section of the dissertation will attempt to isolate basic needs and problems and discuss them in general terms. This analysis will serve as background to the discussion of the development of library services in the region.

When deliberating on needs and problems there is always the danger of generalisation or oversimplification of issues that are often unique and subjective and relate to one particular state.

Danger of generalisation

In the Third World states, however, the problems and challenges that are being encountered are often similar and parallel, because the social, economic and historical development of these countries is often similar (Bandara, 1979:131).

Similar backgrounds

Needs that are frustrated by pressure to compete in a fast developing world create some of the problems experienced in Third World states. The developed world has had a much longer history of technological development in all fields and was therefore better prepared to adjust to the rapid technological advances that have been made since the Second World War. The developing world, on the other hand, has had at the most only two and a half decades to achieve the same level of economic advancement which is a precondition to the absorbing of most of the social problems that technological advancement brings.

Frustrated needs

Therefore, problems can result if the basic needs of the people of the Third World are not met. A profound knowledge of the prevailing conditions and the problems being experienced in the Third World is necessary in order to plan adequate strategies which will anticipate and meet the challenges facing the Third World.

Knowledge precedes plannin

3.2 THIRD WORLD NEEDS

The needs that are focussed upon in this section are the non-physical needs that are of primary importance in the social organisation of most communities.

Should some of these needs not be met, the frustration that results can create socio-economic problems.

3.2.1 EDUCATIONAL NEEDS

Education is the most vital of all resources

Education is one of the most basic of all man's non-physical needs as it influences his economic, informational, social, political, cultural, recreational, spiritual and emotional development. Man can acquire literacy only through education. Literacy in turn is essential for effective human communication (Keating, 1984:3), and communication forms the basis for the development of all the other human needs. This is perhaps why Schumacher (1973:79) sees education as "the most vital of all resources".

Effective communication

Society depends on effective communication between its members and in modern societies, which all societies aspire to be, the primary vehicle for communication is language (Keating, 1984:7).

Bridgehead

Education may be regarded as the bridgehead to the modern sector which is regarded as being synonymous to development (Murphee, 1976:11). Literacy should not be considered to be the short term solution to economic problems, but should rather be regarded as part of a sustained long term component in the development process (French, 1982:7).

There is a growing realisation that education forms the basis of long term development. National ideals and aspirations have arisen as approximately 25 years have elapsed since independence in most of the African states. Many people now take it as a right to have the opportunity to experience both basic education and its higher forms.

Education is seen as a right

Accordingly, many underdeveloped countries are using as much as one third of their limited resources to increase educational opportunities (Benge, 1979:73). Education also offers social mobility with the accompanying higher status and economic benefits. Therefore, education is not always desired for its intrinsic values, but in some cases for the qualifications it provides for this vertical movement (Murphee, 1976:11). As more people are educated, they will exert an influence on their direct communities and this will result in what Kotze (1980:18) terms "the revolution of rising expectations". It is of particular importance that the general literacy level is upgraded, otherwise the library will become an institution catering for the elite only, and the mass of the population will be ignored. It is estimated that the average literacy rate in Africa is 39% (Keating, 1984:3).

One of the reasons for this high illiteracy rate is the manpower shortage regarding teachers. Many of the persons classified as illiterate are persons who have lost their literacy because of lack of encouragement, aggravated by the inaccessibility of books. Library and information services should form part of the literacy and education programmes (Penna, Foskett and Sewell, 1977:21).

Literacy programme

There is also a basic need to africanise the educational content of syllabi. This africanisation implies the task of assembling the African heritage and adapting it to contemporary needs, relevancies and aspirations of the modern African state (Murphee, 1977:103). Africanisation should not be regarded as the rejection of all that is foreign, but as a fuller realisation of what Africa itself has to offer (Ki-Zerbo, 1973:25). The importance of an indigenous education on all levels should be observed in the light of the socio-cultural implications of education. These implications have worried administrators and leaders in Africa since the sixties, and reservations about taking over an educational system based on foreign concepts and predominantly taught by non-Africans have been voiced on several occasions. Kgware (1978:[3]-[4]) terms the adaptation of the syllabi to African needs, "the challenge of relevance". Africanisation should not be confused with a lowering of standards, but should be equated with the aspiration for an education system which meets the needs of the African (Boshoff, 1970:8-9).

Africanisation

3.2.2 ECONOMIC NEEDS

The economic needs of the African states are determined by the demands made by the new economic category they are entering. Finance is required to facilitate development and this is forcing a shift in the economic structure of the developing nations. The economic needs of the traditional African are different from those of people in the First World. The developing nations must adjust their economic goals and accelerate development in order to compete on an equal basis with the First World countries, and thus to solve the economic crises facing them.

Economic needs

A review of the literature reveals that most authorities agree that only an acceleration in productivity in all economic sectors can avert

Economic expansion

economic disaster in Africa. This economic expansion would involve changing the rural attitudes and any such change would necessitate radical shifts in the socio-economic structures. These transformations must be accompanied or preceded by radical shifts in educational strategy and methods. Suitably oriented formal as well as informal education is accepted to be an investment necessary for economic growth, rather than a mere consumer service (Penna, Foskett and Sewell, 1977:21).

Impediments to growth

The three main impediments to economic development in the Third World are :

* the economic preponderance of the rural sector;

* the dependence on predominantly subsistence-based agricultural employment;

* the export of primary products, mainly minerals, foodstuffs and raw materials of agricultural origin (Dickenson et al., 1983:71).

Economic upgrading

The most immediate economic need is therefore the upgrading of the quality of life of the vast majority of the Third World population. Only then will the people be able to make a more positive contribution to the general economy of their countries.

Social services

Development involves the upgrading of the standard of living of the communities on a wider scale than the purely economic. The process involves the provision of a wide range of social services: housing, education, electricity, sanitation and water supply (Dickenson et al., 1983:128). These services can be rendered by linking community development with traditional customs, since traditionally the community was responsible for the spiritual and material needs of the individual (Kotze, 1980:30). Rural development is largely dependent on the teaching of new economic and civic roles (Adams and Adams, 1971:62).

Openness to innovation

The African has proven himself willing to adapt or change his institutions to meet the requirements of economic development. This openness to innovation has been proved by his acceptance of agricultural products which are not indigenous to Africa, as well as his acceptance of foreign languages to overcome internal language barries (Kamarck, 1971:61-62). The potential to change exists - it is just a matter of managing and directing the process.

There is also a need for expansion in the industrialised sector. This development will create new jobs and will diversify the economies away from dependence on subsistence agriculture and the export of primary products. Manufacturing might also have a number of spin-offs and might spread benefits to the rest of the economy. There would be a salutory influence on transport, energy provision, finance and commerce. Industry would focus on the dynamism of change, and the industrial sector would be regarded as the source of "modern" attitudes (Dickenson et al., 1983:147).

Industrialised

3.2.3 CULTURAL AND RECREATIONAL NEEDS

Cultural activities, which are often inseparable from recreational activities, surpass the basic physical needs of man. Both types of activity act as a supplement to the physical needs and make them more meaningful by changing the quality of life and by endowing life with new interest and value (Ofori, 1972:6).

Improves the quality of li

Development brings a reduction of working hours and this means more leisure time to be spent on cultural and recreational activities.

Traditionally the societal relationships were not separated from the community as a whole. The head of the state (the chief) was also the leader in cultural affairs. The education of the young was the responsibility of the immediate community. With development comes differentiation - family and church take on new differentiated roles. The state, especially, has a particular role. It acts on behalf of the whole community and as such controls education (Ruperti, 1976:4). It is through education that cultural development is directed. The nationalisation of education, thus, has marked cultural implications in the many multi-cultural societies in Africa.

Differentiate role

The revival of African culture owes much to European scholars who studied African cultural history and who placed it in its proper perspective internationally (Kaungamno and Ilomo, 1979a:22-28) (Hunnings, 1977:128).

European academics

There is a basic need to have one's culture preserved. Cultural preservation can be given impetus by the provision of musea, art galleries, theatres and libraries, as well as through book production. Africa, due to its limited facilities for indigenous book production and publication, is running the risk of allowing the cultural effect of indigenous philosophies, languages, customs and religions to wane.

Cultural preservation

Book production

Governments can do much to bolster book production by means of subsidies. UNESCO has made a valuable contribution by promoting publishing in developing countries and by providing financial assistance (Penna, Foskett and Sewell, 1977:104).

Education and culture

The sphere which is really crucial to the preservation of culture is education. Education introduces the student to his culture directly, indirectly, consciously or by a more subliminal process. The organised education of a community is therefore part and parcel of the culture of a community (Ruperti, 1976:3).

Oral tradition

The oral tradition of the African once formed a very important part of the preservation and transmission of the culture of the traditional illiterate society. Oral traditions were passed through generations with little distortion (Frylinck, 1983a:116). In modern times, however, even in illiterate societies, these traditions are disappearing fast (Benge, 1979:131). This problem should be diagnosed on a regional scale, and action should be taken to remedy the possible loss of culture before much of the culture that was preserved through the oral tradition is lost for posterity.

The importance of culture

Once libraries were established, their cultural value was quickly realised. Libraries have become workshops of rediscovery and of interpretation of the African culture (Kaungamno and Ilomo, 1979a:28). The value of culture as an important component of nationhood is realised by African leaders. Kenneth Kaunda (1966:59) has stated that, "It is primarily through the evolution of a genuine culture that a people discover their own identity" and Julius Nyerere is on record as saying that a country that lacks its own culture is no more than a collection of people without the spirit which makes them a nation (Kaungamno and Ilomo, 1979a:28).

3.2.4 INFORMATIONAL NEEDS

Oral tradition

The traditional informational needs of the African were met by means of the oral tradition as part of the tribal social system. Oral tradition is, however, not being vivified, even in illiterate communities (Frylinck, 1983a:117).

Modern technological influences are the cause of the diminution of the oral tradition, and therefore the oral tradition must be supplemented by additional methods of disseminating information in an attempt to meet the extended demands of the developing society.

Information needs

The informational needs could include consumer needs such as housing, budgeting, welfare and health, legal and even personal problems, such as family care (Ahrends, 1984:47).

The potential of the library

The need for information in any form is inherent and this has made the library such an important contemporary institution for the dissemination of information. There is always, however, the problem of illiteracy. Educationalists realise the potential of the library in combatting illiteracy and propound the use of the library in literacy programmes (Ahrends, 1984:42). The library can play an active role in determining the reading and informational needs of its users and can therefore actively participate in the development process (Kotze, 1980:25).

The more general informational needs that go hand in hand with economic development are being anticipated by rural development and agricultural extension projects. The rural development/agricultural extension officers require the back-up of information services to fulfil their services, and libraries can provide invaluable assistance in this respect.

3.2.5 SOCIAL NEEDS

The extended family

Traditionally the African society was highly organised into a network of relationships which held its members together. It was a mutual society since it was organised to satisfy the basic human needs of all its members, and therefore individualism was discouraged (Kaunda, 1966:24). The extended family is fundamental to this social organisation.

New social needs

This traditional organisation has been disturbed and challenged by the modernising society and many of the needs that were accommodated by the traditional society are not being satisfied. In addition, many new social needs have been created during the transition stage in which all the developing states are at present.

Many changes are facing the society as a whole. For instance, the extended family will eventually be replaced by the nuclear family;

people are also living longer and entering and leaving the labour market later (Cabeceiras, 1978:3).

New roles

Roles in the "new" society are also different. If people wish to realise their own potential, they should be aware of these new roles of both men and women, and should see these roles in relation to the situations which are developing around them.

Women

The role of the woman, in particular, is changing. Women are entering the economic market in far greater numbers, and therefore the woman must fulfil a new social role in addition to her traditional role (Benge, 1979:116).

Role of the library

The new social needs as well as the problems of two social orders make demands on the person entering the social order, and consequently the social needs of this person have undergone a dramatic change. This development, has influenced the role of the library, which as a social institution, has to assist the user in his search for social perspective (Thompson, 1974:40).

3.2.6 PSYCHOLOGICAL NEEDS

Emotional stress

The literate person is aware of his inability to absorb everything of the world around him and of the imperfect state of his knowledge. The member of the traditional society on the other hand, understands his traditional society and can handle all aspects of life as it is known to him (Kotze, 1980:27), since the extended family sees to most of his emotional needs. The member of the society in transition finds himself somewhere between these two extremes. This dilemma may lead to considerable emotional stress as the individual tries to understand the complexities of the new society he is entering without being fully equipped to make the transition.

The individual finds himself largely on his own, and in many cases between peers who are in a similar predicament.

Role of the library

One of the possibilities for resolving his predicament would be to attain a better understanding and knowledge of himself and his role in the new society. His self-confidence would consequently increase and this would enable him to cope better with the faster pace and the novel challenges of his new role in society. Libraries could play a part in this respect by identifying psychological problems and by supplying information necessary to deal with them.

If psychological needs are not satisfied and the resultant emotional stress is not contained, the disruptive anxiety could lead to lack of productivity and might contribute to the onset of drinking problems (Benge, 1979:116).

Lack of productivity

3.2.7 NATIONALISM

Man experiences a fundamental need to control his political destiny - this need is actualised through nationalism, which places nationhood in the foreground. Nationalism is not a static concept, but has proved to be a major driving force in the destiny of nations (Kotze, 1969: 9,19). It was the sense of belonging and national pride which challenged colonialism and its economic exploitation in the period after the Second World War. This movement culminated in most African states becoming politically independent in the sixties.

Control one's destiny

Nationalism, to a certain extent, augments the roots of the extended family and the security of the individual is placed in a wider arena and on a national basis. This augmented extended family necessitates the replanning of the social structure to accommodate different ethnic groups (Kaunda, 1966:51). The problem in Africa is, however, that political affiliations tend to be ethnic, and political parties are often organised on these lines (Benge, 1972:107). True nationalism that will bridge ethnicity will occur only if a strong sense of patriotism on an extensive scale can be actively cultivated by responsible leaders.

The broader basis for tru nationalism

Libraries have always been recognised as having immense potential to foster societal and political change, since their contents reflect societies and ideological views (Thompson, 1974:10). In the First World situation objectivity of the contents of the library is actively advocated. In the Third World, which has a much less developed sense of political "freedom", this objectivity is not always possible (Penna, Foskett and Sewell, 1977:90). The library may therefore be required to help educate the people in the doctrines of the reigning political ideology. The same ruling applies to omitting materials contradicting the current ideology, such as censoring communist literature in a non-communist country or vice versa (Kotze, 1980:33).

The potential of libraries

3.2.8 SPIRITUAL NEEDS

Religion is essential to man

The spiritual need, as part of man's attempt to find meaning to life and to acquire values which make his existence meaningful, is the essential need of man. This spiritual need cuts across organised religion and is therefore found in all communities, forming the ground motive for all his social actions.

The African accepts the Bible

The traditional African society has a heritage of explicit morals (Benge, 1979:111). It was therefore easy for the African to accept the teachings of the Bible. The world of both the Old and the New Testament is strikingly similar to much of Africa. Proof of the wide acceptance of the Bible is the fact that the Gospels have been printed in more than 560 African languages (Benge, 1979:111).

Most Africans belong to a church

It was relatively easy for the African to accept Christianity as he has a situation-experiencing mind, rather than the Westerner's problem-solving mind (Kaunda, 1966:29). This is perhaps the reason why most Africans still adhere to some form of organised religion (Benge, 1979:129).

Merger of traditional with Christian religion

It is not uncommon in Africa, however, to see the traditional customs merged with Christian doctrines, and churches that have accommodated such a merger have become very popular (Benge, 1979:133). An example of such a church in Southern Africa is the Zionist Christian Church.

Role of the library

The African in transition has a profound spiritual need since he is entering a changing society. In religion one finds security, solace, guidelines and enlightenment. The library has a role to play by providing suitable material and by guiding persons to the material which may assist them in their search for spiritual happiness.

3.3 THIRD WORLD PROBLEMS

Many problem areas as demarcated in this section may overlap. Problems in the context of development are usually inter-related and seldom exist in isolation. For instance, geographical problems may have economic, staffing, infrastructural and educational implications.

3.3.1 EDUCATIONAL PROBLEMS

Holdsworth (1976:49) summarises the common problems of developing countries as follows:

"Educational was deficient throughout, resulting in a tragic lack of trained manpower at higher and middle levels, for leadership, research, teaching and for carrying on government affairs as well as for the needs of trade and industry . . . Literacy levels were uniformly low, with illiterates comprising the majority of the populations . . . Economies were largely based on agriculture with some notable exceptions whose incomes were boosted by minerals or oil, and the populations were predominantly rural and existing on subsistence farming. Education was impeded by the existence of different language groups. Population growth was seemingly incapable of being checked among an illiterate and often casually employed people."

Common problems.

The above assessment of the general educational problems is also reflected in a study of the literature on the subject. Many of the problems experienced in the educational sector are usually also shared by the library profession, for instance both professions have to compete with the private and/or public sector for staff provision (Baker, 1981:81) (Meier, 1976:532), as well as for funding (Goma, 1984:14). These constraints result in the level and rate of development being tailored to the funds available and this trend has had a negative effect on the development of educational facilities in general.

Education and librarianship share many problems

The shortage of trained manpower is the single most significant restraining factor in development in Africa, since trained indigenous personnel offer the best solution to most of the developmental problems experienced (Goma, 1984:5).

Manpower

Expatriate staff have been utilised to alleviate the manpower shortage. The extensive employment of non-African staff has lead to other problems. Only the African himself can truly bridge the social, communicative and ideological barriers which characterise the transfer of cultural, social and national values in the educational context. The employment of Africans would also result in less staff turnover (Wandira, 1977:88-89).

Expatriates

Overseas training of indigenous personnel is a widely accepted practice as an attempt to supplement indigenous training programmes in the indigenisation process. This solution is not without repercussions. Students face environmental, cultural and climatic difficulties overseas and only limited numbers are allowed. Further, the training often fails to place sufficient emphasis where it is required, as very few overseas lecturers have had first-hand experience of conditions in developing countries. The biggest drawback of foreign training is the inability of graduates of average ability to adapt the methods and practices they were taught overseas to local conditions (Kaungamno and Ilomo, 1979a:68). Frustration and loss of manpower has often resulted since students are frequently reluctant to return home after the completion of their studies (Hunnings, 1977:126).

Foreign training

The problem of illiteracy is one of the fundamental educational problems facing the developing world. Without a meaningful literacy rate there cannot be sufficient spin-off to further training and it is difficult to implement rural development programmes. All of which leads to the perpetuation of a vicious circle.

Illiteracy

The literary tradition, the book, the library tradition and librarianship as a profession, were all alien to Africa. This backlog resulted in Africa having to rely extensively on overseas publishing facilities (Parker, 1983b:21). In many instances textbooks and syllabi intended for overseas use were translated or prescribed for use in Africa. This practice often results in Africans being exposed to content that is outside their cultural or social scope. A contributing factor to the deficiency of a publishing industry could be the multilingual situation in most parts of Africa. Many African states have solved this problem by adopting one of the colonial languages as the official language, or one of the official languages, of the state. This policy still does not offer a solution to the problems created by mother-tongue instruction and the consequent geographic limitation of trained teachers to areas where they can communicate freely on all levels.

Foreign educational content

Publishing industry

Mother tongue instruction

Malnutrition with its related illnesses has a detrimental effect on the academic development of students, in the short as well as in the long term. Malnutrition reduces performance, motivation and the ability to concentrate (World Bank, 1975:303).

Malnutrition

Education without in-depth planning may lead to problems in the economic as well as the educational field. Large scale educational expansion without well developed industries to absorb graduating students and pupils is being challenged (Penna, Foskett and Sewell, 1977:21). This view is also expressed by Meier (1976:522) who sees accelerated economic growth in terms of more immediate requirements such as, vocational, technical and adult education as there is a critical manpower shortage involving people with a secondary education. The strategy to meet the shortage should include the provision of both professional and sub-professional personnel. The meeting of this shortage would offer a more short-term solution to the manpower problem. This solution would in turn develop the economy to facilitate eventual optimum education on all levels, including universal primary education which would be the ultimate educational goal.

The provision of manpower facilitate industrialis tion process other educational prior: ties

3.3.2 ECONOMIC PROBLEMS

National and economic security are based on sound economic development. Inadequate economic development, caused by whatever reason, invariably leads to national instability and this again results in further economic problems. This is currently the situation in many African Third World states (Hodder, 1978:85).

Economic problems may lead to political problems

The reasons for the economic instability of most African Third World states are varied. Each individual state will most definitely have particular problems, but under this heading more general economic problems that have an effect on education will be isolated and briefly discussed.

General problems

The African economies are still primarily based on neo-colonial lines and as such still depend on First World economies, relying on their export of a few primary products, such as minerals and agricultural produce, whilst still importing most of the manufactured goods they require. The rich countries utilise technology for economic development and in a commercial relationship with the developing states, the rich countries will be advantaged until the developing states develop their own industries based on technology (Singer and Ansari, 1977:37). This industrial progress is hampered by the fact that science and technology has been developed mostly for First World conditions (Singer and Ansari, 1977:50). Also the low levels of education and high levels of illiteracy create barriers for the use of modern machinery and technology (Dickenson et al., 1983:148).

First World is benefitting

Insufficient investment in agriculture

Dangers of agricultural dependency

Although agriculture is the most widespread economic activity in Africa, insufficient investment is being channelled into this sector. Consequently, no sound economic base is being laid for subsequent industrialisation and diversification (Hodder, 1978:93). This oversight has resulted in the slow expansion of agricultural production, which in most of Africa has not even kept pace with the growth in population (Dickenson et al., 1983:78). There is always a danger attached to a dependency on agricultural exports. If there is a sharp drop in world demand, the economy can be severely influenced. Since governments are usually dependent on agriculture for a large percentage of their income, the rate of agricultural development will determine the eventual industrialisation and subsequent development of the states (World Bank, 1982:4).

Human resources

Human resources are being neglected in terms of capital investment. This malappropriation has resulted in a relatively low quality of human resources and limited economic advance (Meier, 1976:519). The lack of attention given to human resources has resulted in little shift in economic activity, since on average 80% of the Third World population is involved in subsistence farming (Dickenson et al., 1983:81). Patterns of population growth are usually unrestrained. The rising birth rate has a negative effect on the economies of Third World states, since more resources have to be devoted to a large percentage of the population that is not economically active (World Bank, 1982:25).

Underutilisation of women

Women are being underutilised in the economies of African Third World states. Many studies on the role of women in the African economy have been completed during the past decade (1975-1985: the United Nations Decade for Women). Because of the underutilisation of local human resources extensive use is being made of expatriate staff. Baker (1981:93) has found that the removal of one overseas contract post provides funds for the equivalent of up to six national staff.

Physical factors

Often physical factors such as climate and geography are overlooked when economic problems are examined. In Africa these factors play a significant role in the economies of all the states as the economies are closely related to physical factors (Kamarck, 1971:5-6).

In an attempt to overcome economic problems the Third World relies on economic aid from the more developed countries. The acceptance of aid or even trade with developed countries is not without complications - economic involvement of a non-African state with an African state often has political motives (Hodder, 1978:138) (Myint, 1973:141).

The complications of foreign aid

3.3.3 GEOGRAPHICAL AND ENVIRONMENTAL FACTORS

The geography of a country or region has a marked influence on library development. Geographic factors dictate the pattern of human settlement, the nature and extent of transport and transport services, the communications network and even the climate itself (Parker, 1983b:15).

Influence

Climatic factors, if not controlled, can lead to the damage of library materials. Environmental factors that could damage furniture and materials include: high temperatures, direct sunlight, dust, sand, mould, rodents, high humidity as well as low humidity with high levels of radiation (Baker, 1981:198). Damage to materials can also occur outside the library after the materials have been borrowed (Harris, 1965:254).

Effects of libraries

Geographic remoteness from sources of supply, as is the case in all Southern African Third World states, can have a considerable effect on unit cost of materials. Geographic remoteness and the consequently greater possibility of erratic supplies can become a critical factor, especially in the case of periodicals which must be supplied regularly and consistently (Baker, 1981:205).

Remoteness

Geographic isolation leads to professional isolation, since there is usually only one university in each state. Professional literature is as a rule geared towards the First World conditions and is often irrelevant to Third World problems. To maintain contact Third World librarians must publish articles frequently and must keep up contacts regionally by attending conferences and organising visits and special study projects. Further opportunities for contact can be facilitated through professional bodies operating on a rotating basis in the region.

Professional isolation

3.3.4 STAFFING PROBLEMS

Originally most libraries or library systems in African states with a British background had very few indigenous professional librarians. The executive staff consisted either of expatriate staff or of equally

Few indigenous librarians

expensively foreign-trained local staff (Kaungamno and Ilomo, 1979a: 24).

Hunter (1977:97) distinguishes four stages in the localisation of staff:

Localisation

- Stage One: nearly all the staff are expatriate;
- Stage Two: although expatriates are still in the majority, a substantial number of the staff is local, although this is often due to very rapid promotion;
- Stage Three: all the top posts are localised, but the lower level posts still accommodate a significant number of expatriates;
- Stage Four: very few expatriates remain.

Competition with public and private sectors

The first stage of dependency on expatriate staff is often prolonged due to competition with the public and private sectors which offer faster promotion and better remuneration (Ogunsheye, 1976:103) (Baker, 1981:81). These sectors also offer positions regarded as being of a higher status than that of librarianship (Frylinck, 1983b:35).

Relatively fast promotion

Because of the shortage of fully qualified professional personnel, paraprofessionals and persons with only middle level training and certification are often performing professional duties (Ogunsheye, 1976:103). This practice has resulted in senior posts being filled by relatively young and inexperienced persons who would have reached the corresponding level of management positions in the First World only after a much longer period of service.

Expatriate personnel

Initially, at least, the use of expatriate personnel offers a short term solution to the chronic staff shortages experienced (Lor, [1983]:24). This solution is, however, not without further complications. There is usually a high staff turnover with the consequent lack of continuity (Hunter, 1977:92). Expatriates are also not as easy to recruit, as selection and appointment require overseas travel or the right contacts to interview candidates. This factor, as well as lucrative contract stipulations, often involve high costs (Lor, [1983]:24). Expatriates can also experience difficulties adjusting to the different cultural environment and the foreign infrastructure, attitudes and standards. This adjustment or acclimatisation can take several months or even years, and therefore an expatriate may not be fully productive for a large percentage of his contract (Asheim, 1966:65).

It has also been alleged that expatriates that occupy senior management positions apply unrealistic requirements based on irrelevant First World standards when considering the promotion of local staff. This has lead to frustration and eventual loss to the profession of potential indigenous staff (Yesufu, 1973:62). The expatriates were also expected to actively embark on a diminution of their own roles (Hunter, 1977:95). Indigenous staff in their turn, can become frustrated if this diminution does not occur.

Diminution of
the role of t
expatriate

It is a sad loss to Third World librarianship when trained Third World library staff offer their services to First World institutions, because an unstable political situation in their countries of origin has raised fears of victimisation by the authorities (Yesufu, 1973: 61). These circumstances have resulted in the establishment of an African expatriate pool (Lor, [1983]:24). This brain-drain could, of course, also be attributed to economic circumstances or inadequate conditions of service (Ki-Zerbo, 1973:22).

Brain drain o
staff

There is also the problem of ethnicity in a multi-cultural society. Should a certain ethnic group dominate the staffing pattern, resistance can be experienced from other ethnic groups (Wandira, 1977:57). Tribalistic tendencies may be avoided if objective criteria are applied when making appointments.

Ethnicity

The real solution to staffing problems lies in the local training of indigenous staff. This can be facilitated by means of in-service training programmes, the attendance of short courses, the attendance of overseas and local conferences, seminars or workshops, as well as by the active promotion of library training at local tertiary institutions, if no such training facilities already exist.

3.3.5 INADEQUATE INFRASTRUCTURE

Libraries do not function in isolation and form part of some larger administrative unit in the university or government. Due to the development process, the administrative infrastruture is in itself in a state of constant change. It is therefore by no means uncommon for major changes in administrative relationships to occur (Parker, 1983b:16-17).

Libraries are
not in isola-
tion

Modern information transfer is dependent on telex, telephone and postal services. Without efficient telecommunication services, the

Electronic
means of inf
mation trans-
fer

introduction of computerised systems of information transfer is precluded (Parker, 1983b:18).

Bureaucracy

Bureaucratic machinery often lies in the hands of inexperienced persons, who may expend a great deal of effort, but who, as a result of bad organisation, do not get the work done as efficiently as expected (Prylinck, 1983a:80). Lack of infrastructure, such as roads and bad communications, may also play a role in the level of productivity.

Problems of in bureaucracy in perspective

The problems surrounding bureaucracy can be traced back to colonial times. Procedures and routines were then worked out in great detail to minimise the amount of independent decisions that the colonial civil servant had to make. As a rule, local staff were not involved in decision-making on a senior level. With the acquisition of political independence, this civil service system was perpetuated by many Third World states (Asheim, 1966:41-42). Independence, however, usually coincided with an exodus of trained officials. This left the Africans who had occupied junior positions and who had had little training and guidance to man the civil service of the newly independent states.

Under such conditions, it is difficult to organise an effective interlibrary loan system (Baker, 1981:209).

3.4 CONCLUSION

The role of the library

A review of the literature on the role of the library in the general development of Africa reveals that the concept of library development to support the educational, economic, industrial and social programmes in developing countries has become widely accepted.

Literacy planning

It is therefore essential that open lines of communication should exist between the library planners and the various government departments. This rule applies especially in respect of educational planning. For instance, large-scale literacy programmes should not be initiated without prior library planning, since the new literates will require library services to practise their newly acquired skills and to prevent them relapsing into their previous illiterate state (Penna, 1970:31).

Since many of the problems and needs are common to the Third World states, the solutions that can be applied to meet these needs and problems could also be shared by professionals operating in related fields.

Professional bodies

Although travelling is expensive because of the distances involved, an attempt should still be made to maintain professional contact through conferences, workshops and study groups. Professional bodies can play a vital role in the organisation of such activities, as well as in the publication of related literature. Another area in which professional bodies can make a valuable contribution is in the planning of information services on a wider scale which involves dealings with government. The profession can speak with a united voice and its recommendations would therefore carry more weight with the government than the appeals of individuals (Penna, Foskett and Sewell, 1977:8-9).

Relevance

The problem in most African countries at present is not only finance, but also relevance with regard to the content of the libraries and to educational programmes, as well as to the types of libraries that should be developed for Africa. It must be remembered that Africa consists of largely traditionally non-literate and non-print oriented societies and cultures (Ogunsheye, 1976:99).

4. UNIVERSITY LIBRARY DEVELOPMENT AT SELECTED SOUTHERN AFRICAN THIRD WORLD TERTIARY INSTITUTIONS.

4.1 INTRODUCTION

To place the tertiary library development in perspective, a concise background study of each state will be done covering the history, political situation, cultural features, economic activities and general educational aspects. This study is not intended to be a detailed investigation, but is intended merely to serve as background to the university development of each state, as well as to the major problems experienced by each state and to the local solutions applied by each state to their specific or common problems.

Method of investigation

Although some of the problems experienced in the Southern African Third World states are shared on a regional basis, there are, however, certain problems that apply only to specific states due to specific prevailing conditions.

Problems are often shared

The solutions to the problems are often particular to specific states since policies and strategies have been tailored to meet specific needs and problems. National problem-solving endeavours do not, of course, preclude regional co-operation to apply combined problem-solving expertise in the development process.

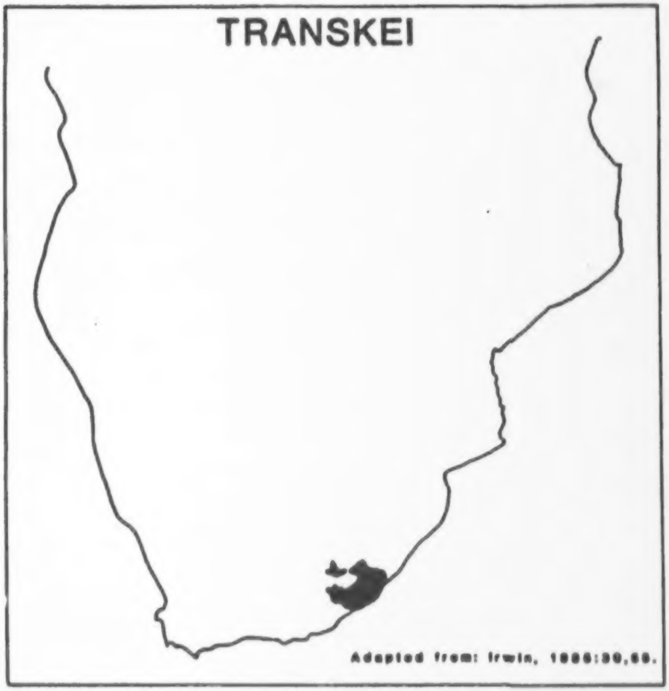
Solutions are frequently particular

Interviews were conducted in most cases with university librarians[*] to establish general problems relating to libraries and education in general. Solutions which reflect local attempts to solve the problems experienced are dealt with under the fourth sub-section of each heading.

Local problem and local solutions

In some instances statistics mentioned in sources of reference differ. An attempt has been made to verify statistics wherever possible, but where substantial differences occur, the discrepancies have been indicated in the text.

4.2 TRANSKEI



Adapted from: Irwin, 1988:30,68.

4.2.1 BACKGROUND

Historical background

By the late 18th century the Xhosa had reached the territory known today as Transkei. For the next century (until 1877) the Xhosa were involved in several clashes with the Whites that lived in the Border area west of the Kei River. By the end of the 19th century the area was ruled by Britain. When the Union of South Africa was established in 1910, Transkei was incorporated into the Union, but separate administration through resident White magistrates and local councils continued. In 1931 the General Council was established. In 1959 a Black person was appointed as chairperson of the General Council. In

1962 the RSA government announced that Transkei was to be granted self government. Paramount Chief Kaiser Matanzima became Chief Minister of Transkei in 1963, after elections had been held (De Wet, 1976:3-6).

Independence

The Republic of Transkei was declared independent by the RSA on 26 October 1976 and became the first of the national states to be granted this status. The capital city is Umtata and Chief Matanzima was elected the first Prime Minister, a position he still holds.

Population

The population of approximately three million persons is for the most part homogenous (Anon., 1983a:141).

Languages

The official language is Xhosa, but English, Sesotho and Afrikaans are used for judicial, legislative and administrative purposes (Anon., 1984a:818).

Economy

The economy is traditionally subsistence-based, but is supplemented by migrant workers bringing in capital. Industrialisation has been actively promoted, the two major growth points being Umtata and Butterworth (Campion, 1976:17-20).

An important economic resource of Transkei is its agricultural land. It is estimated that Transkei could produce enough maize to feed the whole of the RSA (Le May, 1976:25) and could provide for half of the tea needs of the RSA (De Wet, 1976:20). Agriculture still makes a larger contribution to the economy than manufacturing (Anon., 1983a:142).

Education

Transkei has a literacy rate of 50%, and 95% of children of school-going age attend primary school. There is, however, a high drop-out rate during primary school. There are several technical and commercial colleges as well as an agricultural training college in Transkei (Anon., 1983a:142). Teacher training is done at ten teacher training colleges as well as at UNITRA (University of Transkei).

4.2.2 UNIVERSITY DEVELOPMENT

Historical background

The first university facilities in Transkei came into being in 1975 when the University of Fort Hare established a branch in Umtata. The university became the autonomous University of Transkei when Transkei became independent in 1976, and was officially opened on 6 May 1977.

Building plans were initiated immediately and the new campus was occupied in January 1980.

The university now has five faculties: Arts, Science, Economic Sciences, Law and Education (University of Transkei, 1984:13).

Library development

The first university librarian was appointed in 1978 and the new library premises that make ample provision for future development and the possible integration of audio-visual material were occupied in 1980. The library has a book stock of 50 000, subscribes to 900 periodical titles and has ample seating facilities for users.

Non-book materials

The university library also houses non-book materials such as slides and films and the catalogue reflects such holdings.

4.2.3 PROBLEMS

Library, language and science skills

* Educational: Many students have very little or no background of library use and many students lack basic language and science skills.

Exchange rate

* Economic: The Rand-Dollar exchange rate has had a negative influence on the budgets. Severe budgetary cuts have also further diminished purchasing power. Transkei is not recognised as an independent state by the international community and very little international aid is received.

Professional contact

* Geographic limitations: Transkei is geographically isolated and this factor has a negative effect on professional and other contact. The roads are often impassable in the rainy season and contact with the outlying areas becomes extremely difficult.

Shortage of staff

* Staffing: The number of librarians which graduate at UNITRA to some extent meets the demands of the profession in Transkei. There is, however, a general shortage of library personnel, especially in the middle and top management levels. The professional seclusion is a source of discontent.

4.2.4 SOLUTIONS

Training colleges

The lack of teaching personnel is being met by increasing the number of training colleges to ten. In the university library a core collection of teachers' textbooks forms part of the combined children's/

school library special collection. The Library Association of Transkei (LATRA) has an on-going school library development project by which school libraries are adopted and assisted with development. This policy has resulted in the establishment of model school libraries.

School library development

In order to compensate for the lack of trained staff, certain library techniques such as cataloguing can be simplified so that para- professionals can perform them rapidly and efficiently. The complicated cataloguing rules can also be translated into "simple" English (Van Niekerk, 1979:3).

Simplification of library procedures

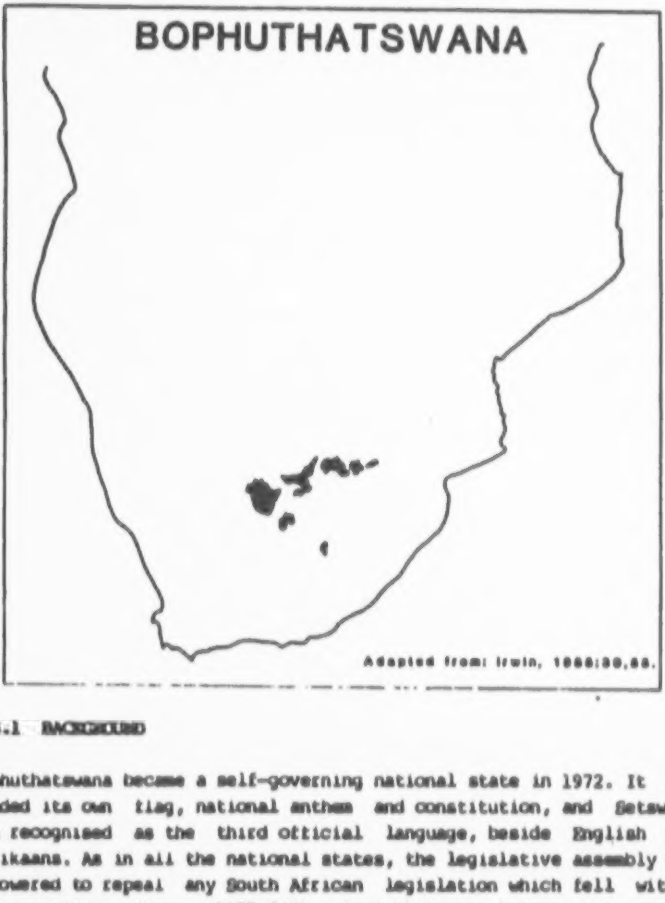
Professional contact and professional development are stimulated by LATRA. Contact with SAILIS on a regional basis is encouraged in at attempt to diminish the effects of the professional isolation.

Professional contact

The university library provides on-going staff development programmes and new staff members attend orientation programmes. The management of the library is extended horizontally by making provision for two deputy university librarians. This approach facilitates a team management approach which is conducive to productivity as well as to staff development.

Staff development

4.3 BOPHUTHATSWANA



Adapted from: Irwin, 1988:30,88.

4.3.1 BACKGROUND

Historical background

Bophuthatswana became a self-governing national state in 1972. It was handed its own flag, national anthem and constitution, and Setswana was recognised as the third official language, beside English and Afrikaans. As in all the national states, the legislative assembly was empowered to repeal any South African legislation which fell within its competence (Anon., 1977:200). Bophuthatswana became the second national state to become an indepedent republic on 6 December 1977 (Anon., 1977:205). Lucas M. Mangope was elected the first president and Mmabatho was declared the capital city.

Geography

The Republic of Bophuthatswana consists of seven areas extending into the South African provinces of the Transvaal, Cape Province and Orange Free State, and one of the sectors has a 260 kilometer border with Botswana.

Population

The population of Bophuthatswana, according to the 1980 census is 2,5 million. Of the 1,3 million people living in the country, two thirds are Batswana. The remaining 1,2 million Batswana live in the RSA. The remainder are mainly members of various Black ethnic groups. There is also a substantial white population concentrated mainly in Mmabatho.

Agricultural development

Mining

Agriculture is traditionally subsistence-based, but attempts are being made to change this tendency by establishing co-operative schemes on a large scale. On these schemes capital, training, marketing and infrastructure are provided. Mining, however, is one of the main sources of national income, since it contributes more than half ot the GNP.

Education

Educationally, Bophuthatswana has suffered the same deprivations as the rest ot South Africa's Black peoples, namely: poorly equipped, overcrowded and understaffed schools in which pupils are taught by less qualified teachers, often by means of double sessions (Hartshorne, 1981?:3). The implementation of the National Education Commission's recommendations, known as "Education for Popagano", which means education based on the principle ot self-help and self-development, has improved the general standard of education in the country.

4.3.2 UNIVERSITY DEVELOPMENT

The need for a local university was felt so strongly that during the late 1960's and early 1970's a spontaneous collection was made to finance such an establishment.

Truly African university

In accordance with the findings of the Bophuthatswana National Education Commission (1978:85), it was agreed that a truly national university would best meet the needs of the Batswana. An attempt was made to establish a truly African university which would place a high priority on the development ot human resources on as wide a scale as possible.

The main campus of the University of Bophuthatswana (UNIBO) is situated at Mmabatho and diploma, graduate as well as postgraduate courses are offered in the tields of Education, Law, Administration,

Study fields

and Management as well as in Health and Social Sciences. The School of Agriculture is situated at Taung and another satellite campus that will incorporate the School of Technology is being planned at Odi, north of Pretoria.

Integrated multi-media library

The first university librarian was appointed in May 1980 and temporary library premises were occupied. A multi-media Resource Centre (as the library is known) is in an advanced stage of planning. The new building will house the Academic Development Centre as well as the Resource Centre and will make provision for the integration of all media. The agricultural collection is housed in the Resource Centre at the School of Agriculture at Taung.

Holdings

The holdings comprise 50 000 volumes of books and 1 440 periodical titles. Just under one thousand audio-visual programmes have been accessioned.

4.3.3 PROBLEMS

Upgrading of lecturing skills

* Educational: The study skills and level of academic competence of the students require upgrading because of the deprived educational background that most students share. Many of the lecturers have limited teaching experience and different levels of teaching expertise are experienced. As a rule teaching staff accept the role of media in teaching, but developing teaching skills is not always so readily accepted.

Exchange rates

* Economic: The exchange rate is not very conducive to importing material. Bophuthatswana is not recognised as an independent state by the international community and therefore very little foreign aid, excluding that from the RSA, is received.

7 Separate areas

Telecommunications

* Geographic limitations: The country consists of seven separate areas and contact between the different areas necessitates travelling long distances. Expatriate staff also require South African visas if they wish to travel to different areas. The western and southern regions are also isolated from the Witwatersrand in South Africa, which is their main supply centre. Telephone links to rural areas such as Taung are not up to modern standards and this has prevented linking the main computer on line to the Taung Campus.

* Staffing: There is a chronic shortage of staff as no local library training facilities exist. Technical staff who are trained in electronics are also in demand.

4.3.4 SOLUTIONS

All students must complete a compulsory study skills course as well as a basic English course. These courses attempt to supplement the lack of competence in these fields.

Study skills and basic English

UNIBO will initially place more emphasis on vocational rather than on "pure" arts and "pure" science courses. The university plays a co-ordinating role in all tertiary education. A sense of responsibility is instilled in the students that they should apply their newly acquired knowledge to improving their community. The university therefore actively participates on an on-going basis in community development projects. Courses are continually being evaluated and being adapted to national needs so that a potential wastage of human resources can be eliminated (Lor, 1983:58).

Education oriented to community development

The Academic Development Centre has a production section which is responsible for all photographic/graphic services, as well as an academic/instructional support and development section. The latter conducts workshops, staff induction programmes, student orientation programmes and gives personal assistance to lecturers with their teaching and with the design of handouts. Technical posts have also been created to service, repair and maintain the university's hardware and equipment.

Activities of the Academic Development Centre

In the Resource Centre the audio-visual media are managed by a media librarian and all media are housed in a media learning area in the Resource Centre. In this area equipped carrels have been installed in close proximity to all the audio-visual media and the media librarian is at hand to render assistance.

Media integration a utilisation i the Resource Centre

4.4 VENDA

Adapted from: Irwin, [illegible].

4.4.1 BACKGROUND

Geography Venda is situated in the northern part of South Africa, but is totally surrounded by the RSA, since a thin strip of South African land separates Venda from Zimbabwe. The Soutpansberg mountain range extends through Venda making large areas of the country mountainous.

History The territory became a self-governing national state in 1973, and gained independence from the RSA on 13 September 1979. Thohoyandou was declared the capital city. The executive president is Mr P.R. Mphephu. The unicameral National Assembly blends traditional chieftainship with modern western-style democracy.

The official languages are Luvenda, Afrikaans and English and the large majority of the population (totalling 513 890) are Vhavenda.

Official languages

The economy of Venda is based on forestry and agriculture. It is forestry, however, that is the main source of income and there are four commercial plantations in operation (ANON., 1983c:52). Migrant labour also makes a substantial contribution, whilst manufacturing contributes only 3,5% of the GNP (Department of Information and Broadcasting, 1982?:[1]-[4]).

Economy

4.4.2 UNIVERSITY DEVELOPMENT

The first university training facilities were established in 1981 when part-time lectures were given by lecturers of the University of the North.

Historical development

The Venda branch of the University of the North became the independent University of Venda on 6 November 1981.

The following year the university moved to Thohoyandou (University of Venda, 1985:20).

At present the university has two faculties and one school: the Faculty of Law, the Faculty of Arts and Sciences (including Education) and the School of Business and Administration.

Faculties

The university library was opened in 1983 at the present campus and the first head of the library was appointed in May 1983.

University library

The library is at present basically closed access because of the limited book stock (10 307 books and 77 periodical titles).

The library at this stage does not have any audio-visual materials.

Non-book materials

4.4.3 PROBLEMS

* Educational: The two main educational problems are the lack of qualified teachers and the acute shortage of adequate physical facilities.

Teachers and physical facilities

* Economic: The facilities that are so urgently needed cannot be provided immediately because of a lack of capital. Industrial or

Lack of capit

business areas are often given preference when initial electricity supplies are provided.

* Geographic limitations: The roads have been extended and improved since independence, but many of the outlying areas are still difficult to reach.

Seclusion

Venda is far removed from the main centres in Southern Africa and any attempt to make personal contact involves travelling long distances at great financial cost.

Staff shortage

* Staff: There is an acute shortage of qualified library personnel. A possible reason for this shortage is the low status of the library profession in relation to, for instance, the teaching profession.

4.4.4 SOLUTIONS

In-service training and teacher training to be extended

To meet the acute shortage of teachers and to break the vicious circle of educational deprivation, teacher training facilities are to be extended. In-service training facilities are to be augmented to upgrade the qualifications of existing teachers. Another teacher training college to supplement the existing two is being planned.

Library co-operation with RSA

In 1979 an agreement of library co-operation between the RSA and Venda was signed. The RSA Department of National Education undertook to advise on library matters and to provide assistance with in-service training in the bibliographic and inter-library loan fields. The Transvaal Provincial Administration undertook to help in the field of public libraries (Mulaudzi, 1984:14).

A special "Study Collection Division" has been established in the National Library in order to accommodate the needs of part-time students (Louw, 1980:4).

Library promotion

A concerted effort has been made to publicise the library service in Venda. Library-related articles appear on a regular basis in the local newspaper, several radio broadcasts dealing with library matters have been made and a paper on the library was delivered during an in-service training programme for school principals. Arrangements have also been made for school pupils to visit the National Library (Mulaudzi, 1984:17).

4.5 CISKEI

Adapted from: Irwin, 1988:30,88.

4.5.1 BACKGROUND

Geography

The Republic of Ciskei is located on the south-east coast of Southern Africa. The wedge-shaped territory is bordered by the Great Fish River in the west and by the Black Kei River in the north-west. Ciskei does not have any natural harbours along its coast.

Historical background

Ciskei became a self-governing national state in 1972 and on 4 December 1981 it became the fourth national state to gain independence. Dr Lennox Sebe became Chief Minister on 21 May 1973 and became the first president on independence (Capstickdale, 1982:39).

Population

The total population of Ciskei (1980 census) is 1 071 515 with 630 353 persons living in Ciskei. The population is predominantly homogenous, as 99% of the population are classified as Xhosa (BENSO, 1981:194).

The government of Ciskei is attempting to effect a movement away from the traditional subsistence-agriculture economy to a more manufacturing-based economy. Factories are being erected at a steady rate (BENSO, 1981:194) and company tax has been abolished in an attempt to encourage investment in the country.

The literacy rate is 80% and there are several institutions of technical, vocational and industrial training, as well as an agricultural college and the University of Fort Hare (Anon., 1983b:174).

4.5.2 UNIVERSITY DEVELOPMENT

Historical background

The University of Fort Hare was opened on 8 February 1916 as the South African Native College. In 1937 the name was changed to the University College of Fort Hare. On 1 January 1960 the institution was assigned to the Department of Bantu Education of the South African government and ten years later, on 1 January 1970 it became the autonomous University of Fort Hare.

RSA Dept of National Education responsible for initial period of 5 years

It was agreed that the South African Department of Education and Training would still be responsible for the administration of the university for an initial period of five years after independence. Although predominantly a Black university, race is not a criterium for admission (University of Fort Hare, 1985?A1-A5).

The university offers a number of short in-service training courses which serve the wider community and it also does research in a wide range of study fields.

Holdings

Although the library was founded in 1916, the first full-time university librarian was appointed only in 1935. At present the library has 110 000 volumes and subscribes to over 2 200 periodicals. It also houses a valuable Africana collection, known as the Howard Pim Collection (University of Fort Hare, 1985?:A46).

The university library does not contain many non-book materials, but those materials that are kept in the library are reflected in the catalogue.

Non-book
materials

4.5.3 PROBLEMS

* Educational: Students arriving at the university generally have very little, if any, library background. Although a large percentage of the students are from the RSA, there is no marked difference between their library background and that of other students.

Library and
language ski

The level of English is generally also very poor.

* Economic: There have been substantial budgetary cuts and these cuts have resulted in a diminution of periodical subscriptions.

General lack
sufficient
funds

The library is also severely understaffed and vacant posts that were frozen in the past have now been abolished and have to be remotivated.

* Geographic: The geographic seclusion has had a negative effect on the staffing of the library. Young staff, as a rule, prefer the urban areas. Accommodation of staff is also a problem since there is only limited accommodation available in Alice.

Seclusion

* Staffing: There is a high turnover of staff and a general shortage of trained library staff is experienced.

4.5.4 SOLUTIONS

The Academic Development Centre (ADC) was established in 1980 and student as well as staff development is undertaken. All new students have to attend a compulsory bridging course which includes language and study skills.

Staff and
student
development

Staff development includes seminars, symposia and workshops on relevant topics. Part of the services of the ADC include a production unit and a linguistic unit that advises lecturers on how to improve communication in their classes.

Academic
Development
Centre servic

In-service training is done as part of the staff development in the library. Financial assistance is given to staff who wish to attend courses offered by the Council for Scientific and Industrial Research

Staff
development

(CSIR) or the South African Institute for Library and Information Science (SAILIS). No formal in-service programme exists for library staff.

4.6 LESOTHO

Adapted from: Irwin, 1988:80,86.

4.6.1 BACKGROUND

Historical background

Lesotho's origins may be traced back to the first half of the 19th century when Moshoeshoe gathered the remnants of tribes fleeing from the Zulu in a mountain stronghold at Thaba Bosiu.

Lesotho, known until independence as Basutoland, was under British rule as a protectorate from 1868 until independence on 4 October 1966 (Perry, 1981:233).

During the 1970 election, the Prime Minister, Leabua Jonathan, declared a state of emergency, suspended the constitution and had the opposition leaders arrested. An interim National Assembly, containing representatives of all the principal parties, was nominated in 1973, but no new elections were held (Perry, 1981:223).

Population

The population (1980 estimate) is 1 321 000. Lesotho has a cultural and ethnic homogeneity which is exceptional in Southern Africa. The official languages are English and Sesotho (Kurian, 1982:1058-1059).

Economy

Lesotho has few natural resources and its economy is based mainly on tourism and the export of labour (Kurian, 1982:1064). Agriculture employs 87,4% of the labour force, while only 4% of the labour force is employed in manufacturing (Kurian, 1982:1064).

The national literacy rate is given as 40% (Kurian, 1982:1065), 52% (World Bank, 1982:110) and 60% (Anon., 1984b:512).

Private schools account for virtually all primary school enrolment and 89% of secondary level enrolment. The final two-year secondary course leads to the Cambridge Overseas School Certificate. The medium of instruction is English, but Sesotho is taught as the vernacular in primary school (Kurian, 1982:1065).

4.6.2 UNIVERSITY DEVELOPMENT

The origins of the National University date back to 1945 when a Roman Catholic University, known as Pius XII College, was founded.

Historical development

On 1 January 1964 Pius XII College was replaced by the independent, non-denominational University of Basutoland, Bechuanaland Protectorate and Swaziland (UBBS). In 1966 UBBS became the University of Botswana, Lesotho and Swaziland (UBLS) to correspond with the names chosen by the states after independence. Branch campuses were established in Botswana and Swaziland.

University library

The National University of Lesotho (NUL) was established on 20 October 1975 as separate from the University of Botswana, Lesotho and Swaziland (National University of Lesotho, 1984?:43-45).

The library has a stock of 150 000 volumes and subscribes to nearly 1 000 journals. There is seating for 700 readers. Apart from the inter-library loan service, the library also operates a postal loan service for extra-mural borrowers anywhere in Lesotho (National University of Lesotho, 1984?:53).

Non-book materials

Non-book materials are kept in the archive section of the university library, but will eventually be integrated in the library.

4.6.3 PROBLEMS

Language and library skills

* Educational: Students who enter the university and who make use of library facilities are generally found to lack library experience and background. Their level of English is not very high and on average they appear to be reluctant readers.

Exchange rate

* Economic: The currency is linked to the South African Rand and all negative influences on the Rand, such as for instance unstable political conditions in the RSA, will also have a negative influence on Lesotho's exchange rate. Many of the students are poor and government grants allocated to students are not sufficient to cover their needs. Although sufficient funds are available for purchasing library material, they are not fully utilised by the academic staff.

Landlocked, bad roads

* Geographic: The country is secluded and landlocked. The roads between the main centres are tarred, but secondary roads are very bad and often negotiable only by four-wheel drive vehicle, even in the dry season.

* Staff availability: School library science is offered as part of the educational programme, but professional library science training is not offered at NUL. Due to the assistance of the British Council, most of the professional library staff is UK trained.

There is a shortage of technicians and all repairs are done in the RSA in Bloemfontein or Johannesburg.

* Infrastructure: Payment of accounts is done by the central university ordering department. This procedure often leads to delays before payments are made.

Delays with payment of accounts

* Others: Frequent power cuts are experienced, especially during thunderstorms.

4.6.4 SOLUTIONS

Independent user-education is spread over a long period of time to compensate for the under-utilisation of the library by the students. The academic staff as a rule are not very highly motivated to attend these programmes, but students respond very well. The students are even prepared to attend these programmes in their own time.

User Educatio

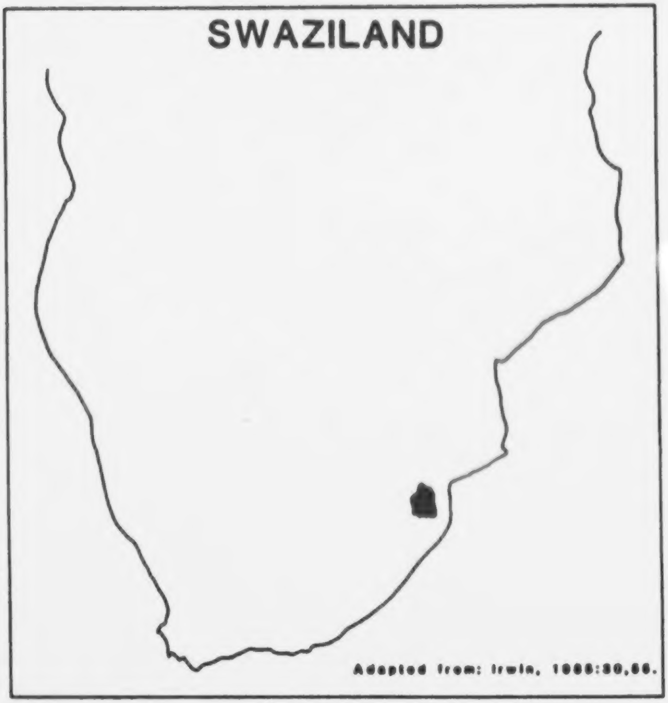
On-the-job training of library staff is done, notwithstanding the difficulties this entails, since there is a chronic shortage of staff. This in-service training serves as a preamble to overseas studies and is supplemented by correspondence courses where possible. The attendance cf conferences is actively encouraged. International organisations often provide financial assistance to attend conferences and workshops.

In-service training

Attendance of conferences encouraged

The library has an emergency power supply to provide electricity during power cuts and then all library seating is usually occupied.

4.7 SWAZILAND



Adapted from: Irwin, 1988:50,66.

4.7.1 BACKGROUND

Historical background
Population
Economy

Swaziland became a British High Commission territory after the Anglo-Boer War and attained independence on 6 September 1968 (Kurian, 1982:1681).

The King is the head of state and the country is ruled by means of an array of traditional institutions and councils (Kurian, 1982:1681).

The total population (as in 1980) is 542 000. Of the African population, which makes up 96% of the total population, over half is

Swazi, whilst the rest of the population belongs to the Zulu, Tonga or Shangaan tribes. The official languages are SiSwati and English (Kurian, 1982:1680).

Economy

The economy is based largely on agriculture. Kurian (1982:1684) indicates that 75,4% of the labour force is employed in agriculture, whilst De Vletter (1984:853) places agricultural employment at 50%. Employment in the manufacturing sector is given as 6,3% (Kurian, 1982:1685) and 11% (De Vletter, 1984:854).

Education

The national literacy rate is estimated at 25%. 4% of the population has some kind of post-secondary education. The language of instruction is SiSwati in the lower primary grades and English from the middle primary grades on (Kurian, 1982:1686).

4.7.2 UNIVERSITY DEVELOPMENT

Background

As was noted in 4.6.2., the Lesotho component of UBLS withdrew in 1975 and all facilities, monies and files were nationalised in Lesotho. This decision to nationalise meant that the central administration of the university could operate with only limited effectiveness from the temporary premises at Malkerns in Swaziland from 1975 to 1976. All students from Swaziland and Botswana were withdrawn from the Roma campus and resumed their studies in Botswana (Economic and Social Studies) and in Swaziland (Law).

In 1976 UBLS became the University of Botswana and Swaziland with the two constituent university colleges in Botswana and Swaziland.

Independent national universities

The two countries realised that in the long run the two university colleges would develop into independent national universities. When student numbers justified the viability of two independent national universities, the principle was implemented in June 1982 (University of Swaziland, 1984?:8-9).

University library

The only academic library in Swaziland is the University of Swaziland's library at Kwaluseni, which was founded in 1971 and which incorporates the Faculty of Agriculture's branch library at Luyengo. The university library also compiles the Swaziland National Bibliography (1976-) and has a collection of Swaziana (Kuzwayo, 1980:549). The joint stock is 82 000 volumes of monographs and 800 periodical subscriptions. The main library can seat 290 readers and

Non-book materials

the Luyengo library can seat 130 readers. The library also stocks audio-visual materials and other reprographic media (University of Swaziland, 1984?:33). Non-book materials are at present housed separately, but are reflected in the catalogue.

4.7.3 PROBLEMS

Lack of publishing industry

* Educational: The provision of educational materials that have a national character has not been accomplished on a notable scale due to the lack of a well developed printing and publishing industry.

Physical facilities

Classroom facilities are often inadequate and in some cases school may even be conducted in the open air. The lack of facilities is most frustrating to teachers, especially when they start their teaching careers.

* Economic: Due to the recession some of the overseas aid has been cut at the very time that it was most needed.

Professional contact

* Geographic: The geographic seclusion which leads to lack of professional contact is aggravated by political limitations, such as limited official contact with the RSA.

Overseas staff need visas to travel to Johannesburg en route to overseas destinations. This restriction can lead to frustration due to delays.

In-service training

* Staffing: The main impediment to staffing is the provision of funds. Once a post has been approved and funded, the incumbent must still receive further training since theory has to be brought to bear on local practice. All the professional staff have been trained outside the country.

* Infrastructure: The administrative infrastructure is as a whole inadequate when measured by First World standards.

4.7.4 SOLUTIONS

Solicitation of foreign aid

In times of limited economic resources more demands are made on the manager of the library to take the initiative to solicit foreign aid and to build up foreign contacts, since there is stronger competition for the limited funds that are available through foreign aid.

In the community itself an awareness of the role of the library in development must be created so that requests for funds may have a greater impact.

Library promotion

Staff development should be given top priority. Training and development can be facilitated by :

Staff development programmes

* official in-service training programmes;
* circulation of staff in the different library departments;
* appointing staff on management committees;
* delegation of certain management tasks;
* promoting the attendance of conferences and workshops by allocating sufficient funds and time to attend these functions.

4.8 BOTSWANA

Adapted from: Irwin, 1988:30,66.

4.8.1 BACKGROUND

Background

Botswana came under British rule in 1895 when Khama III, chief of the Bamangwato, appealed to Queen Victoria for help against the Matabele. The Protectorate of Bechuanaland, as it was previously known, became the independent Republic of Botswana on 30 September 1966.

Affiliation to any political party is allowed and Botswana is by international standards one of the most free countries in the world. (Kurian, 1982:206).

Population

The population of Botswana was 941 000 in the August 1981 census (Commen, 1984:237). About 70% of the population belong to the Tswana tribe. English is the official language with Setswana the co-official and national language (Kurian, 1982:205).

Mining accounts for the biggest single share of the GNP with beef production taking second place. Manufacturing is underdeveloped and is dominated by a meat processing enterprise (Commen, 1984:236).

Education

The national literacy rate is 22% in English and 33% in Setswana. All schools are controlled by the Education Department and curricula have been placed in national perspective, with greater emphasis being laid on agricultural subjects. The school system continues to depend heavily on expatriate teachers in secondary schools (Kurian, 1982:212).

4.8.2 UNIVERSITY DEVELOPMENT

Background

From 1976 to 1982 the university colleges of Botswana and Swaziland developed their physical resources and their academic programmes in close co-operation with each other, but with a view to the establishment of separate national universities on 1 July 1982.

The formal inauguration of the University of Botswana was performed on 23 October 1982 by the President of Botswana, Dr Q.K.J. Masire.

The University of Botswana and Swaziland continued to operate until the end of 1982 for the purpose of examining and awarding degrees, diplomas and certificates.

In terms of an agreement between the governments of Botswana and Swaziland, the two universities will continue to exchange students and co-operate in certain fields. To facilitate this co-operation, an Advisory Committee has been set up on how best to co-operate (University of Botswana, 1984:28).

Co-operation

The university library was opened in 1971. Its holdings have now reached 80 000 volumes, including 1 000 periodical titles (University of Botswana, 1984:50).

University library

The development of the non-book material section is being hampered by space problems. The new university library that is being planned will house all media.

Non-book materials

4.8.3 PROBLEMS

* Educational: A great deficiency is experienced in the competency in both basic sciences and English. Library services are on the whole inadequate and there is a shortage of school textbooks.

Lack of competence in sciences, English, library utilisation an shortage of textbooks

* Staffing: Enough funds exist for posts, but many posts are not filled due to the lack of trained professional staff.

* Economic: Books have become expensive in Botswana. Books can be obtained through the RSA, but suppliers often add a surcharge. Delays in executing orders can result in discrepancies arising between the initial price quoted and the eventual price to be paid, since foreign exchange rates fluctuate.

* Geographic: The professional seclusion has a negative effect on general professional development.

Professional seclusion

The long distances and bad roads have a deleterious effect on the provision of education in the areas away from the main centres.

4.8.4 SOLUTIONS

The deficiencies in English and scientific subjects are supplemented by compulsory courses as part of a study skills programme. Library skills are taught as part of the library orientation programme and the programme is produced with the co-operation of the academic departments. Students are divided into groups of ten to fifteen and the

Library skill.

fields that are covered in the orientation programme are: cataloguing, reference works, periodicals and micro materials.

Multi-media library planned

In 1974 a study tour was undertaken to the United Kingdom to determine the viability of the integration of audio-visual materials with the books. It was concluded that the multi-media library would offer solutions to space problems, would prevent the duplication of expensive equipment and would be financially viable in the long run. The new library that is being planned will therefore be a multi-media library that will make provision for the utilisation of audio-visual material as an integral part of the normal library services.

4.9 ZIMBABWE

Adapted from: Irwin, 1986:30,88.

4.9.1 BACKGROUND

Historical background

Originally known as Mashonaland, the area became the British territory of Rhodesia after the defeat of the Ndebele in 1897. In 1923 Southern Rhodesia was annexed by the Crown and the colony received its first constitution. After the demise of the Central African Federation of Southern Rhodesia, North Rhodesia and Nyasaland in 1963, Southern Rhodesia began to negotiate for independence. A conflict situation arose when the Blacks insisted on majority rule. This difference of opinion lead to the Unilateral Declaration of Independence by Ian Smith in 1965.

The Blacks did not accept the White minority government. After a protracted armed and political struggle, a majority government under Robert Mugabe's Zimbabwe African National Union (ZANU) was formed. The Rev. Canaan Banana was nominated to be the first president of the Republic of Zimbabwe (Kurian, 1982:2016). The capital city, formerly known as Salisbury, was officially declared to be Harare.

Population

The population of 7 346 000 (1980 estimate) consists of approximately 71% Shona, 16% Ndebele and 13% smaller ethnic groups. Political parties are based on ethnic lines, for instance; the ruling ZANU party is largely Shona and the opposition Patriotic Front under the leadership of Joshua Nkomo is a predominantly Ndebele organisation (Kurian, 1982:2015-2018).

The official language is English and the predominant African languages are Shona and Ngoni (or Ndebele).

Second only to the RSA, Zimbabwe has the most broadly based economy of any African state. It has a well-established and diversified industrial infrastructure (Rake, 1981-1982:388).

Economy

Manufacturing, therefore, makes the biggest contribution to the economy, followed by agriculture and mining (Davies and Pakkiri, 1984:993). Agriculture, however, employs most of the labour force (Kurian, 1982:2020).

Education

The national literacy rate is between 25% and 30%. The literacy rate of the White population is, however, nearly 100%. Until independence there were two school systems, one for Whites, Coloureds and Asians and one for the Blacks. One of the major problems of Zimbabwean education is the provision of qualified teachers (Kurian, 1982:2024).

4.9.2 UNIVERSITY DEVELOPMENT

Historical background

A campaign for the establishment of a university was initiated in 1945, but the University College of Rhodesia and Nyasaland was only incorporated by Royal Charter on 11 February 1955. Although the Federation of Rhodesia and Nyasaland was dissolved in 1964, the name of the University College was changed only in 1971, when it became the University of Rhodesia. After independence the university became known as the University of Zimbabwe-Rhodesia, but in 1982 the University of Zimbabwe Act replaced the Royal Charter of 1955 and the President of Zimbabwe was inaugurated as the Chancellor of the University of Zimbabwe in 1983 (University of Zimbabwe, 1985:32-24).

Courses

The university offers courses in the fields of Agriculture, Arts, Commerce and Law, Education, Engineering, Medicine, Science, Social Studies and Veterinary Science.

Satellite campuses

The university library consists of the main library with four branch libraries: the Medical Library, the Law Library, the Education Resources Collection and the Map Library.

Stock

The main library building is designed to accommodate over 530 000 volumes and to seat 1 000 readers. The university library subscribes to 5 500 current periodicals and the total book stock is 350 000 volumes (University of Zimbabwe, 1985:57-58).

Non-book materials

The university library has a limited stock of non-book materials which consists mainly of micro film, micro fiche and a number of multi-media kits.

4.9.3 PROBLEMS

Education

* Educational: Zimbabwe is experiencing a shortage of qualified teachers, especially in secondary schools. The large educational deficit has resulted in large classes, especially in the lower standards. In an attempt to counter the shortage of teachers, many expatriate teachers are employed.

* Economic: There is a general shortage of funds. Foreign currency allocations are limited by the government. This restriction has a negative effect on the purchase of library materials, most of which must be obtained overseas.

Economic

* Geographic limitations: The isolation of the country in relation to the rest of the library world has a negative effect on professional development. Great distances have to be travelled to maintain national contact.

Geographic limitations

* Staffing: The staffing of the university library has been predominantly localised and the only problem that is being experienced is the lack of contact with colleagues on an international basis.

Staffing

4.9.4 SOLUTIONS

Language and study skills are developed by including the relevant courses in the curricula of first year students. Teaching methods have also been adapted to include self-study projects. This ruling enables students to practise academic and critical skills, and supplements the traditional examination-oriented approach which relies heavily on rote learning.

Self-study projects

To enable teachers to enter the labour market earlier, teachers may be appointed after completing their first degree. The Higher Education Diploma is then staggered over two years of part-time study.

H.E.D. staggered over two years

The government is sympathetic to libraries and recognises their role in the literacy campaign. Proof of this is the National Library and Documentation Service Act, which has laid the foundation for the national library service and which was tabled in parliament in 1985.

Government is sympathetic to the role of libraries

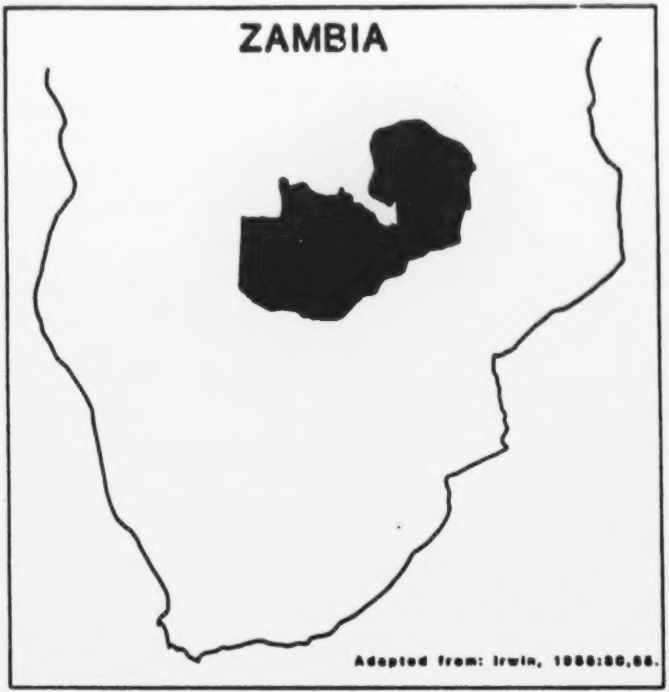
The effects of the geographic isolation are countered by active contact with professional colleagues on a national and international basis. For instance, heads of departments may go on university-sponsored overseas visits once every three years; the staff development programme makes provision for overseas studies; short courses are organised regularly on a national scale.

Staff development programmes

Professional contact on a national and international basis is facilitated by the Zimbabwe Library Association.

Grants and foreign aid are actively sought. The Faculty of Veterinary Science is, for example, funded by British aid.

4.10 ZAMBIA



Adapted from: Irwin, 1988:80,88.

It was not possible to visit Zambia to interview the University Librarian personally. Consequently a professional librarian of 12 years standing, who worked at the University of Zambia for four years (1981-1984) immediately prior to the time this study was undertaken, was interviewed.

4.10.1. BACKGROUND

Northern Rhodesia became a British Protectorate in 1923. On 24 October 1964 Kenneth D. Kaunda became the first president of independent Zambia. The country is a one-party (United National Independence Party) state and the President is empowered to veto any legislation or to dissolve the National Assembly (Kurian, 1982:1999).

Historical background

Nearly 98,7% of the population which totals 5 740 000 (1980 estimate) belong to the more than 70 Bantu-speaking tribes. English has been accepted as the official language in order that language differences may be overcome, whilst Bemba is the lingua franca (Kurian, 1982: 1997).

Population

The economy of Zambia is based mainly on mining which provides most of foreign exchange earnings. The mines, which have been nationalised, produce enough copper to make Zambia one of the world's major exporters of the metal. However, foreign investments in Zambia have been progressively reduced as a result of nationalisation (Kurian, 1982:2005). Agriculture employs 68% of the economically active population, but since agriculture is mainly subsistence-based it makes an insignificant contribution to the export earnings (Kurian, 1982:2003).

Economy

The literacy rate is given as 28% (Kurian, 1982:2007), whilst the literacy rate is also given as 35% (1979 estimate) (ANON. 1984c:983). Schooling lasts for 12 years and on completion of their secondary school studies, students receive the Cambridge Overseas School Certificate. The curriculum has been Zambianised. The language of instruction is English, but regional vernaculars are emphasised in the primary school. There are adequate facilities for training primary school teachers, but White or Asian teachers constitute nearly 90% of all secondary school personnel (Kurian, 1982:2007-2008).

Education

4.10.2 UNIVERSITY DEVELOPMENT

The university was established in 1965. Dr Kaunda was inaugurated as the first chancellor of the university in 1966.

Established in 1966

At present the university consists of the main campus in Lusaka with satellite campuses at Ndola and Solwezi.

Courses

Courses are offered in the fields of Education, Humanities, Social Sciences, Natural Sciences, Law, Engineering, Medicine, Agricultural Sciences, Mining, Business and Industrial Studies, Environmental Studies and Veterinary Medicine.

The main library also serves as a national reference library. A sub-library was established for the School of Medicine, while the campus at Ndola is served by its own library (University of Zambia, 1984:11-12).

Library services

The university library was established in 1966 and the building is designed to hold 300 000 volumes and to seat 1 600 readers. The library also provides centralised technical services for the entire university. The total collection already amounts to 300 000 volumes and the library subscribes to about 2 000 current periodical titles, and receives approximately 600 more titles by donation and exchange (University of Zambia, 1984:230)

Non-book materials

The university library can be classified as a multi-media library as it organises and manages all forms of media. The non-book collection is housed separately, but is reflected in the catalogue.

4.10.3 PROBLEMS

Language, study and library skills

- Educational: The majority of students lack a thorough knowledge of English, since English is their second or third language. Students also lack study and library skills when they enter university. A shortage of textbooks is also experienced. Lecturing staff, who do not possess teaching qualifications, often express the need to upgrade their lecturing skills.

Overseas aid has been reduced

- Economic: The reigning economic recession has forced the university authorities to curtail spending. Overseas aid has also been reduced. The purchasing power of the allocated funds has further been reduced by the negative exchange rate. Government grants to students are often not sufficient for their needs.

- Staffing: Staffing constraints exist only on management level.

- Administrative infrastructure: Delay with the payment of orders is experienced.

4.10.4 SOLUTIONS

First year students are offered bridging courses in language study and library skills. Academic development of staff who wish to improve their qualifications is facilitated by generous study leave allocations and financial assistance. Academic staff are also exposed to academic development programmes to improve their lecturing skills (University of Zambia, 197-:33). The Centre for Continuing Education is responsible for extending the services of the university to contribute to the general upliftment of the community (Mutava, 1984:122).

Bridging courses

Academic development

The Zambian Library Association was established in 1967 in an attempt to improve library training programmes and to further library development throughout the country. Conference attendance is encouraged to counter professional isolation.

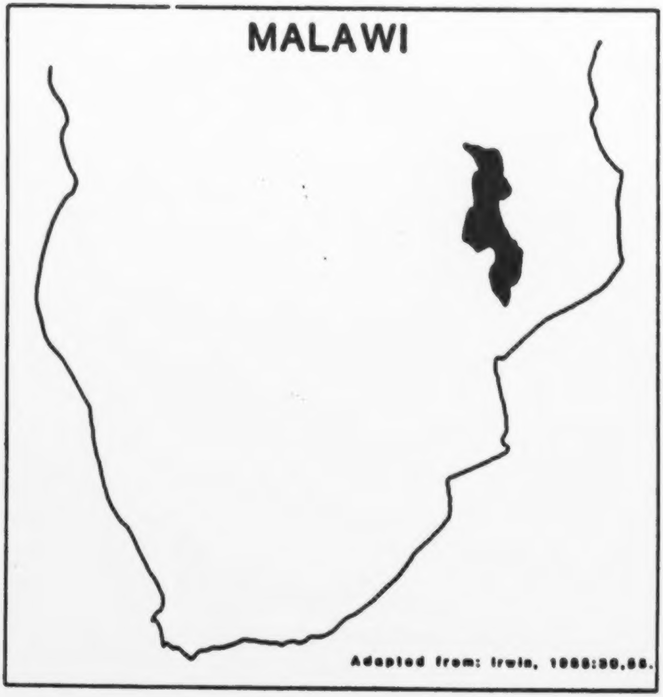
Library Association

An active programme of nationalisation has been instituted and most of the university library staff are Zambian nationals.

The technical services have been centralised in order to streamline technical procedure. Library techniques have also been simplified to assist paraprofessional librarians in small libraries. In-service training programmes have contributed to library staff development.

In-service training

4.11 MALAWI



Adapted from: Irwin, 1988:30,88.

4.11.1 BACKGROUND

Historical background

In 1891 Britain established a protectorate in the area known as Nyasaland in order to protect British interests in the region. After secession from the Central African Federation, Nyasaland became independent Malawi on 6 July 1964. Dr Hastings K. Banda became the head of state. President Banda, as President for Life, has complete control of the only political party (the Malawi Congress Party) and the 1966 constitution makes provision for a one-party state (Kurian, 1982:1128).

Population

The population is 5 951 000 (1980 estimate). 99,5% of the population is African and is ethnically divided into numerous groups. The closely related Chewa and Nyanja together constitute about 50% of the population and Chichewa has been declared the national language whilst English is the official language (Kurian, 1982:1127).

Economy

Malawi has no mineral resources. The economy is agriculture-based and agriculture is responsible for virtually all exports. Most of the economically active persons are employed in agriculture (Carroll, 1984 :557). The three major export crops are tobacco, tea and groundnuts. Manufacturing employs only 5% of the workforce (Kurian, 1982:1133,1135).

Education

The national literacy rate is 15%. The school training lasts for 13 years and on completion of secondary school training, the Malawi Certificate of Education is awarded. The languages of instruction are Chichewa in primary school and English in secondary school. Primary school teachers are trained at thirteen training colleges and secondary school teachers receive their qualifications from the University of Malawi. Nearly 75% of all secondary school teachers are expatriates (Kurian, 1982:1138).

4.11.2 UNIVERSITY DEVELOPMENT

Historical background

The university was established in October 1964 and admitted its first students in 1965. The university comprises four colleges: Banda College of Agriculture, Chancellor's College in Zomba; Kamuzu College of Nursing in Lilongwe and the Polytechnic in Blantyre.

Admission requirements

At present there are about 2 000 students on degree and diploma courses. Students are admitted to the university after they have taken their Malawi School Certificate of Education examination (equivalent to the British "O" level examination).

Library services

The university's library services are organised into four college libraries with a federal University Librarian managing the service. The total book stock consists of 170 000 volumes with the university subscribing to 1 500 periodical titles. Seating provision is made for 340 readers at the main library.

Non-book materials

The main university library has a very limited audio-visual stock which consists mostly of sound tapes, 16mm films, micro film, micro fiche and gramophone records.

4.11.3 PROBLEMS

Educational

* Educational: Students usually lack library and communication skills when they enroll at the university. There is a general shortage of teachers, particularly in high schools. Extensive use is made of expatriate teachers and foreign volunteers, but many of these teachers have difficulty in adapting to local conditions initially. A general need for academic staff development exists.

Economic

* Economic: The general economic constraints are also severely felt by the library. The 7% library allocation of the total university budget is felt to be insufficient as exchange rates diminish the purchasing power of allocated funds.

Geographic limitations

* Geographic limitations: Contact between the four campuses entails the travelling of great distances. Deliveries of orders are by rail through Beira, but this rail-link is often unreliable due to political problems in Mozambique. Because of postal delays, claims for missing journals occasionally do not reach the publishers before the stipulated deadline, and such claims can therefore not be met by the publishers. Professional staff also experience professional isolation because of their isolation in relation to the rest of the library world.

* Staffing: There is a shortage of professional staff in the short term, especially on management level.

4.11.4 SOLUTIONS

Library competence

Study skills, communication skills and library skills are included in the curricula of first year students. Final year B.Ed. students, as well as Sociology and Arts Honours students are required to complete a one-term library course.

Teacher upgrading

Teachers are being upgraded through in-service training courses. If a primary school teacher should display academic promise during these courses, such a teacher may be considered for degree studies.

The University Teaching Methods Committee is responsible for staff development at the university. Staff development is achieved mainly by the conducting of workshops and courses.

Combine the media centre and library

The Media Centre is run by the Education Department, but members of the Education Department and the library serve on joint committees. It has been decided in principle to combine the library and the media centre.

Although there is no production unit at the moment, planning for such units at the Blantyre and the Lilongwe campuses is in an advanced stage.

To stretch the funds available, paperback books are purchased and then bound by the university itself.

Overseas aid is being actively solicited.

Post Office agreement

To speed-up the delivery of journals an accelerated parcel post service is being utilised.

An agreement has been reached with the Malawi Postal Service that three inter-library loan books may be sent by post at the cost of only one letter.

5. AN ANALYSIS OF UNIVERSITY LIBRARY DEVELOPMENT IN SOUTHERN AFRICAN THIRD WORLD STATES AS REFLECTED IN THE SURVEY

5.1 INTRODUCTION

In this section of the study the general trends in university library development as reflected in the questionnaires and the follow-up contact with the participants will be traced.

General trend
as reflected i
the survey

By analysing the data collected, an attempt has been made to establish general trends, rather than to isolate individual institutions and states regarding localised developments, problems or solutions to common problems.

More emphasis is placed on the development and treatment of the components of the multi-media library at the various institutions than on a historical perspective involving general university development in the region.

More emphasis
on the MML

The analysis reflects two distinct groups regarding university development; namely the TBVC states on the one hand and on the other hand the states that are politically recognised by the international community. With the exception of Ciskei, the university development of the TBVC states is fairly recent (after 1976), whereas the other states have had a longer period of university development.

Two groups

The political aspect has an influence on the development of universities, and when this perspective influences development, mention is made of it.

This analysis will be based on the interviews as well as the 10 completed questionnaires. When mention is made of, for instance, four respondents, four out of the total of 10 are implied - i.e. 40% of the respondents.

5.2 A SUMMARY OF UNIVERSITY LIBRARY DEVELOPMENT

Each of the Southern African Third World states has developed its own university in an attempt to meet the particular needs of each respective state. The stock of each university library reflects this principle. Each of the states has only one university library, although a

Self-
sufficiency

number of the university libraries have specialist branches or satellite libraries. An attempt is clearly being made to attain self-sufficiency in library services. The regional as well as international isolation makes self-sufficiency of stock imperative.

Library co-operation

Regional inter-library loan co-operation is actively pursued, with the Republic of South Africa with its well developed inter-library loan infrastructure often being preferred as the source for materials. The inter-library loan co-operation between the TBVC states and the Republic of South Africa will be substantially improved once the South African Bibliographic and Information Network (SABINET) becomes fully operational. All the TBVC states intend joining or have already joined the network. Nine of the states also participate in regional bibliographic resource sharing as organised by the South African State Library.

Developmental function

The developmental function of the university library is generally accepted. In most cases the services offered by the university library extend into the community. The university library may be responsible for the organisation and management of special national, regional or Africana collections.

Staffing

Regarding the provision of staffing, two definite separate patterns can be observed. With the exception of Transkei, the TBVC states have predominantly non-nationals in their professional ranks. The internationally recognised states have attained a high percentage of localisation of professional posts. The high percentage of localisation of staff prevalent in Transkei may be the result of the fact that Transkei has been independent since 1976, that it offers professional library science training and that localisation as a policy is actively pursued.

Salary comparison

The salaries of professional librarians in the TBVC states, which are on a par with salaries in the Republic of South Africa, are excellent when compared to the other states. For instance, there is on average a 100% - 300% difference in the salaries paid to professional staff in the TBVC states as compared to the other states. The salaries, as well as attractive fringe benefits make professional posts in the TBVC states very attractive. Many expatriates from other African states are therefore drawn to the TBVC states until such a time that enough local nationals are available to fill the posts.

Financial aid needed

Financial aid from outside sources to foster faster general economic development is urgently needed. The TBVC states receive aid mainly from the Republic of South Africa, whilst the other states receive their aid from a number of international institutions or states. The TBVC states are in most instances precluded from international aid because they have not been granted international political recognition.

Financial constraints

Financial discipline is being exercised in all the states. The economic recession and the widespread regional drought are impeding general library development, since government funds are being channelled into other services.

Physical planning in progress

Only three of the respondents indicated that their physical library facilities are meeting their present requirements. In most instances planning for extensions to libraries is in progress, and in some instances new buildings are being erected to replace temporary library premises.

Centralised technical services

If the university library is organised in a multi-campus or multi-branch system, the technical services are usually centralised. The rationale for centralised technical services is usually the limited manpower available. This arrangement would leave professional staff at the branch libraries free to do other professional tasks.

Computerisation

The potential of computer applications in the university libraries included in the survey has in general not been realised. In most cases very limited use of computerised systems is being made. However, since the deficiency has been diagnosed, considerable expansion in the field of computer applications is being planned at all the institutions.

The role of t university librarian

Often the development of a university library goes hand in hand with the personality, experience, enthusiasm and talent of the university librarian. In all cases, except one, the university librarian occupies a very senior position in the university's hierarchial structure. The position usually carries the same status and privileges as a professorship or a head of department post, and the university librarian can therefore make an input into the planning of academic matters that may involve the library.

5.3 THE ORGANISATION AND MANAGEMENT OF TECHNOLOGY OF EDUCATION AT SOUTHERN AFRICAN THIRD WORLD UNIVERSITIES

Most have non-book material collections

With one exception, all the university libraries included in the survey have non-book materials in their collections. These collections range from an extensive commercial and/or in-house produced collection to a very limited collection.

Parallel collections

Often parallel collections are found in the same institution. In such cases the Faculty of Education is usually responsible for the collection which consists mostly of educationally related materials that are utilised in support of teacher training courses. The reason for this development can perhaps be seen as the awareness educationalists have of the latest developments in educational technology. The specialist collections came as a response to this awareness. Although the initiators of these collections are experts in the utilisation of non-book materials, they are usually not formally trained organisers or managers of information media and/or services.

Under-utilisation

The problem of under-utilisation is recognised by the participants in the survey. There is a general feeling that availability would lead to better utilisation of non-book materials. Therefore the general consensus is that the university library should be the centralised storage and utilisation agent of all materials.

Stored separately, but in the university library

Nine respondents however, indicated that they prefer that the non-book materials should not be integrated with the books in the library, but that separate storage facilities should be created for non-book materials within the university library.

University library is the major centre for utilisation of non-book materials

The awareness of the role of the university library in the utilisation of non-book materials is also reflected in the fact that the university library is given as the major centre for the utilisation of non-book materials. At only three institutions the university library is reported as not responsible for the storage of equipment which utilises the non-book materials. The survey further relects a general consensus regarding deficiencies in the available stock of hardware available for utilisation.

Although the awareness of the potential of the university library in the utilisation of non-book materials exists, the full potential has, in the majority of cases, not been realised because the organisation and management of these non-book materials has not been formalised on a co-ordinated scale. This lack of formal management and organisation is reflected by the fact that only three of the respondents to the questionnaire have a formal and written policy statement regarding the treatment of non-book materials.

Lack of forma policy regarding non-book materials

Four of the participants in the survey have indicated that they have non-book material specialists on their staff establishments to meet the special challenges presented by the organisation, management and utilisation of non-book materials. In Southern Africa in general it is especially difficult to find trained professional media-librarians as no university school of librarianship in the region trains such experts.

Specialist librarians

5.4 THE FUTURE DEVELOPMENT OF MULTI-MEDIA COLLECTIONS

An awareness of the role the university library can play in the utilisation of technology in education is reflected positively by the survey. This more active involvement has been retarded to a certain extent by the negative economic climate. This congnisance of the potential role the university library can play is reflected in the fact that four institutions have in principle accepted the concept of inclusion of all media in the university library. A further four institutions have already reached an advanced stage of planning of multi-media libraries, either as conversions of present facilities or as entirely new buildings.

A more active library role in multi-media envisaged

The assumption that most of the Southern African Third World universities are in a transitional phase regarding the organisation and management of multi-media is therefore based on the fact that eight institutions have accepted the principle of the multi-media library. The internal relations of the components, however, will be determined by the needs of and the conditions prevailing at the different institutions.

Most universities are in transitional stage regardin the developmen of multi-medi libraries

Only two respondents have indicated that they do not envisage the implementation of the multi-media library concept at their institutions in the near future.

5.5 THE UTILISATION / DEVELOPMENT OF EDUCATIONAL TECHNOLOGY AS REFLECTED IN THE SURVEY

A need for educational technology exists

A definite need is felt for development of academic staff and assistance to students regarding learning. A need for general support services to the curriculum is also widely experienced.

Although qualified in their respective academic fields, teaching staff, with the exception of staff of the Faculty of Education, usually lack formal teaching qualifications. A general need for staff as well as student development exists as an attempt to make teaching and the subsequent learning more effective. This need is reflected in the fact that only two respondents indicated that their institutions offer no academic/instructional design services to assist lecturing staff in the planning of teaching as well as in the utilisation of instructional media.

Academic/instructional design mostly the responsibility of the education faculties

The official designation of the department responsible for academic/instructional development varies. In most instances the Faculty or the School of Education, or a sub-department of this department, is responsible for academic/instructional development. In two cases a committee is responsible for effecting this task. At two institutions the "Learning Resource(s) Centre", which is closely connected to the Faculty of Education, is responsible for the application of educational technology on campus.

Separate departments

Two institutions each have a separate department known as the "Academic Development Centre" responsible for academic/instructional design while at one institution the Institute of Education is responsible for the execution of this task. The department in all cases is headed by a director who co-ordinates and manages the services to both lecturing staff and to students.

No audio-visual service centre

One of the respondents has indicated that the institution does not have an audio-visual service centre (i.e. slide, film and video library, projection services, graphics, production etc.).

Motion picture and/or video and slide production services

Three respondents have indicated that they have no motion picture and/or video and slide production or duplication services.

Photographic laboratory

Six respondents have indicated that the services of a photographic laboratory are available to them at their respective institutions.

Educational TV Centre /Radio Centre

Five respondents have indicated that their institutions have an educational television centre, whilst only one have an educational radio centre.

Computer Cent

Only two institutions do not have a computer centre.

Technical services

Five institutions have the services of a technical services section for the repair and maintenance of audio-visual equipment, whilst another is planning to establish such a section in the near future.

Language laboratory

The general problem of language and communication skills that is shared on a regional basis is reflected in the fact that all ten respondents incorporate a language laboratory into their language teaching programmes.

The contents of the non-book collection

As the Faculty of Education is usually responsible for the management and utilisation of educational technology, the contents of the collections may reflect a bias to subject materials relevant to education. This bias may have implications regarding the realisation of the full potential of non-book materials in other subjects, since these subjects may not be as well represented in the collections.

Development in the organisation of educational media is observed

The limitations of a system in which one department plays a predominant role has been widely recognised at most institutions where this situation is experienced. The first stage of the organisation of educational media can therefore perhaps be seen as an experimental stage. The next stage, namely general integration, is now being effected by the advanced planning of multi-media libraries on a wide scale.

5.6 GENERAL PROBLEMS THAT HAVE IMPLICATIONS FOR UNIVERSITY LIBRARY DEVELOPMENT, AS EXPERIENCED BY SOUTHERN AFRICAN THIRD WORLD STATES.

Problems are often shared

An analysis of the problems experienced at all the institutions included in the survey reveals that the TBVC states as well as those states which are politically recognised by the international community have many problems in common.

Regional political background

The fact that the TBVC states are not internationally recognised, however, has regional implications for library development. The TBVC states are treated as if they were an integral part of the Republic of South Africa, and these states are therefore not officially included in the activities of the regional professional bodies. Professional contact is consequently severely limited, even though a predisposition for unofficial contact may exist.

The problems will be dealt with in order of frequency, with those problems shared by most states mentioned first.

Main emphasis on university development

Although more emphasis is placed on university development, the conditions prevailing in the secondary educational level cannot be completely ignored. When more general problems have a direct bearing on university development, these problems will be briefly placed in perspective.

5.6.1 EDUCATIONAL PROBLEMS

Library skills

* Library background: First year students in the Third World who arrive at university often lack a basic library background, since most of them have not been exposed to well developed library services and in some cases have had experience of only very limited school library services. Students are often very shy about their lack of library skills. If this deficiency in library skills is not anticipated and remedied, it could lead to frustration in and loss of productivity by such students.

Communication skills

* Communication skills: In many instances pupils are taught at high school by teachers whose first language is not English. When these pupils reach university, they experience a communicative disadvantage since the medium of instruction at all the institutions included in the survey is English.

Teaching methods differ

* Study skills: Students in the Third World experience a considerable period of adjustment during the first year. There is a difference between teaching methods at secondary school level and at tertiary level. At university more emphasis is placed on independent study and more abstract concepts are learned using methods that are new to many students.

* Scientific background of students: A general shortage of secondary school science and mathematics teachers is experienced, and first year students therefore may lack depth in their science and mathematics background.

Science and mathematics

* Shortage of secondary school teachers: A general shortage of qualified secondary school teachers exists. This shortage often results in large classes.

Shortage of secondary school teac

* Expatriate teachers: Fairly general use is made of expatriate teachers at secondary as well as at tertiary level. In addition to being an expensive option, expatriate teaching staff are felt to provide only a short term solution.

Expatriates

* Limited teaching experience: A general need for instructional development is often felt as local lecturing staff with relatively limited teaching experience are often appointed in promotional posts.

Teaching experience

* Limited physical facilities: This problem is not as acute on the tertiary level as on the secondary and especially on the primary school level. Inadequate physical facilities do, however, negatively influence the general development of students in the long term.

Physical facilities

* Lack of a printing industry: All the states included in the survey have a very limited printing industry to produce the textbooks which are so urgently needed in large quantities. Consequently, a high volume of material is imported.

Printing industry

5.6.2 ECONOMIC PROBLEMS

* Negative exchange rates: All the participants are experiencing the negative effects of the current recession. One such effect is the negative exchange rate to the more powerful currencies such as the American dollar and the pound sterling. The negative economic climate has resulted in budgetary cuts and the negative exchange rates have, in many cases, reduced the purchasing power of the local currencies even further.

Foreign exchange rate

* Lack of capital: Often a lack of capital for development is experienced. Plans for development are therefore being postponed until the general economic climate has improved. Preference is often given to industrial development.

Lack of capit

Foreign aid

* The limitation of overseas aid: Overseas aid is being released in more limited quantities, due to the world-wide recession. The TBVC states receive very little foreign aid since they are not recognised by the international community, although they do receive aid from the Republic of South Africa.

5.6.3 GEOGRAPHIC LIMITATIONS

Professional isolation

* Isolation: The isolation from the rest of the library world and the remoteness from the source of supply of materials is strongly felt by all the participants in the study. The isolation also has a negative effect on productivity and has detrimental staffing implications, especially for those institutions which have rural campuses.

Landlocked

All the states, with the exception of Transkei and Ciskei, are landlocked. Travelling through the Republic of South Afria is restricted as visas are often required by foreign nationals.

Political considerations restrict contact even further

* Professional contact: One of the consequences of the regional and international isolation is diminished professional contact. Because of political problems, no official contact is made between the internationally recognised independent states on the one hand, and the TBVC states and the Republic of South Africa on the other hand.

Research

There is a definite need for research into areas relevant to the needs of the region. Most international research and research papers are geared to First World circumstances.

Long distances

* Long distances: Often long distances have to be travelled to facilitate professional local contact. Consequently a lot of time and money is spent on facilitating such contact.

Roads and infrastructure

* Roads and infrastructure: The main roads are usually tarred, but the roads in the outlying areas are often very bad, especially in the rainy season. This lack of infrastructure has consequences for a well structured and broadly based library service.

* Telephone links: During the rainy season, especially, telephone services may not be reliable.

5.6.4 STAFF AVAILABILITY

* Shortage of trained staff: A general shortage of trained staff is experienced. The shortage is usually more acute at those institutions which do not train professional librarians. When insufficient nationals cannot be secured, expatriates are employed. This practice often leads to a high turnover of staff as well as a prolonged in-service training period.

Shortage of trained staff

* Middle and top management: The need for experienced local persons in top and middle management level is experienced by most of the participants in the survey. There is a lack of middle management personnel and this gap between the operative librarians and the top level posts creates management problems.

Middle and top management shortage

* Training abroad: When no library training facilities exist, wide use is made of professional library training abroad. This outside training has to be supplemented by in-service training programmes.

Training abro

* Low status: When librarians do not have the same status, salaries and priviledges as other similar professionals, staffing problems are often experienced.

Low status

* Technical staff: A general shortage of support staff trained in the technical fields exists.

Shortage of technical sta

5.6.5 INADEQUATE ADMINISTRATIVE INFRASTRUCTURE

The university library functions as a sub-system within the greater systems of the university and the state. Infrastructural deficiencies and constraints such as frequent power failures and inadequate telephone services have a negative effect on the whole system since the relevant sub-systems are prevented from operating optimally.

Infrastructural deficiencies when compared to the First World

In addition, the interviews reiterated many of the problems as stated in 3.3.5 , such as delays in the payments of invoices which are caused when payment is effected through the central university bursar's office. The staffing structure of the multi-media library makes provision for administrative personnel who can streamline the relevant clerical procedures.

5.7 SOLUTIONS TO GENERAL PROBLEMS EXPERIENCED

Often solutions are shared

Many of the solutions are the responses to specific challenges set by the conditions in the particular state or institution. Because of shared problems, the survey often reflects shared solutions to problems even in states with completely divergent backgrounds.

General patterns to be established

In this section general patterns regarding solutions that are shared, will be discerned. These solutions will be arranged in order of consensus.

Organisation of data

This section will not be categorised into Educational, Economic, Geographic limitations (as was done in 5.6). These divisions are as a rule exclusive when examining the problems experienced by the various states. When analysing a trend regarding shared solutions, however, the trend often cuts accross the above-mentioned divisions. For instance, "In-service training courses" as a solution can come as a response to educational, economic, staffing and geographic problems. When the division is ignored, a general indication of consensus regarding solutions can also be observed.

Bridging courses for first years

* Bridging courses for first year students: All the participants in the survey have indicated that their first year students are exposed to bridging courses covering one or more of the following areas: Science, Mathematics, English/Communication Skills, Study Skills and Library Skills. The content of and approach to these courses vary considerably between states.

Staff development

* In-service training courses: A general consensus has been reached regarding in-service training courses for library staff. These in-service training courses are offered on a formal or informal basis. In-service training is conducted in an attempt to develop staff with regard to local conditions. This "acclimatisation" is necessary for both expatriates and local persons that have studied overseas.

Professional bodies

* Professional bodies: Professional bodies play an important role in combatting regional and international isolation. They also fulfil an important staff development function. Professional bodies are actively involved in the organising of workshops, in-service training and research that relates directly to local needs. Professional bodies also publicise the profession as a whole by means of publications and promote the profession with school leavers.

Conference attendance

* Conference attendance: Conference attendance is actively encouraged. Library staff are assisted with leave and are given financial assistance by their institutions. The internationally recognised states have access to international assistance to attend international conferences. The TBVC states, however, are restricted regarding international attendance, but are well represented at conferences that are offered in the Republic of South Africa.

Production services

* Production unit for non-book materials: Commercially available software produced in the First World is geared towards the First World market and therefore it is not always applicable to conditions which are experienced in the Third World. When an in-house production unit is utilised, material more relevant to specific needs is produced.

Such a unit saves time and is invaluable when considering the geographic remoteness from sources of supply.

Combined collections

* All media combined in one location: The problem of user resistance to non-book materials can be solved if users are exposed to non-book materials. It has also been experienced that availability leads to greater use of non-book materials.

Academic development

* Academic development of lecturing staff: The academic development of lecturing staff regarding the implementation of aspects of educational technology has become a widely accepted practice, as eight institutions have such services available to academic staff. The organisation of academic development varies from institution to institution, but only three institutions have separate departments for academic development.

Centralised technical services

* Centralised technical services: When the institution is organised in a multi-campus system, the technical services of the constituent campuses are usually centralised at the main university library. This arrangement is usually an attempt to concentrate the experienced and scarce professionals at one point.

Career advancement

Career advancement: Professional as well as paraprofessional staff are encouraged to embark on career advancement projects. Generous leave as well as financial assistance is often offered as part of the fringe benefits of staff members. This is an attempt to upgrade the number of local persons in the library profession.

Inter-library loans

* Regional inter-library loans: With one exception, all the university libraries included in the survey participate in the regional inter-library loan system as organised by the State Library of the Republic of South Africa. This regional co-operation facilitates fast and relatively cheap access to a substantial combined collection of material.

5.8 CONCLUSION

The analysis reflects that eight of the respondents have accepted the role the university library should play in the utilisation of multi-media. Therefore a general realisation exists that the university library has an even greater future role to play in the utilisation of non-book materials.

The internal arrangement of the material will largely be determined by local needs. There is general consensus, however, that non-book materials should not be completely integrated with the books. This tendency should not be seen as the final arrangement, but may be seen as part of the process that may lead to fully integrated collections. Users have to be trained and resistance to use of non-book materials has to be broken down before full integration can be realised.

6.THE APPLICATION OF THE MULTI-MEDIA LIBRARY TO SOUTHERN AFRICAN THIRD WORLD CONDITIONS

6.1 INTRODUCTION

The predominant emphasis of this study is the application of the multi-media library on tertiary level. The ramifications of the application of the multi-media library, however, extend further than the tertiary level.

A large percentage of the students trained at Third World universities will enter the teaching profession. If these students have been exposed to educational technology, they themselves will be able to become exponents of educational technology in their turn. Students who enter other professions would also have been exposed to teaching methods that utilise media. They would be positively inclined to apply such media and methods in their training programmes they themselves may institute.

Users of the MML library can become exponents

The application of the multi-media library in its educational context lends itself more to providing solutions in the educational field than the traditional library. The possible applications of the multi-media library as offering solutions to educational problems will therefore be discussed in more detail than the other relevant aspects.

More educational applications

6.2 EDUCATION

The implementation of the multi-media library, in the role of keeper of educational material and active participant in the educational act, has numerous implications for Third World education.

The student as well as the lecturer in the Third World context have distinct problems and needs created by the prevalent conditions. The graduate of the Third World university has a far greater educational role to play than his First World counterpart. In the Third World it is not only the graduates of the Faculties of Education that serve their communities as teachers. In the Third World professionally qualified persons are often forced to assume the roles of trainer and leader over and above their professional duties, due to such limitations as a scarcity of adequately qualified and trained staff. The

The Third World graduate also has an educational role to play training methods to which the graduates have been exposed will ultimately influence the manner in which these graduates will later conduct their own in-service training programmes. The same principle can be applied to teachers. If teachers have not been exposed to educational technology, and more importantly, have not become literate in the application of the technology of education during their training, it is unlikely that they will demand such literacy from their pupils.

Non-book materials extend the teacher's capabilities

The potential of the application of educational technology in the Developing World has been widely recognised. The application of the non-book materials in education extends the teacher's capabilities. These multi-media can provide additional learning experiences which would have been out of reach with traditional teaching methods and they can therefore supplement good teaching (Schramm, 1977:17-18).

HRSC Report

The HRSC investigation into the provision of education for the Republic of South Africa specifically mentions the implementation of educational technology to improve the quality of Black education in the Republic (HRSC, 1981:49). The Report recommends that some of the educational problems may be solved by the introduction of educational technology (HRSC, 1981: 172). Although this study was undertaken for the Republic of South Africa only, correlations can be drawn between conditions prevailing in Southern African Third World education and conditions prevailing in Black education in the Republic of South Africa, such as large classes, insufficient qualified teachers, insufficient physical facilities, financial restrictions.

Needs-oriented service

The students who live in the Third World environment have specific needs and the education system of which they are a part should attempt to satisfy these needs. The service that the multi-media library delivers should be directed to the effacement of the academic backlog many students experience - it is therefore the students who should be the main beneficiaries of the multi-media library. If, on the other hand, the education system does not take cognisance of and attempt to meet the specific needs of these Third World students, unproductivity may result and this underutilisation of manpower may have far reaching economic consequences.

Individualised learning facilitated

Although many first-year students have problems in common, each student is also unique in that he possesses unique talents and in that he may differ from his fellows regarding his educational background, his level of expertise in various subjects and his language development.

Once a general problem has been diagnosed, the educational expertise and facilities are available to produce audio-visual programmes which attempt to alleviate the problem (Baker, 1981:222). Each student can then follow such programmes at a pace commensurate with his individual talents and needs.

MML orientati

Audio-visual programmes may be produced to introduce new students to the different components of the multi-media library and to acquaint them with the skills required to operate the hardware. Ideally, these programmes would be produced in the various formats, with each format "advertising" itself where possible. The students would be able to utilise these programmes on an on-going basis to reinforce their knowledge and to refer back to when required. These audio-visual programmes would, of course, be ancillary to the official library orientation programme.

Thorough library training of users

The thorough training of users is a precondition for the successful educational application of the multi-media library. The staff establishment of the multi-media library could make provision for training experts to conduct a programme that would have as its objective the cultivation of media literate users.

Own programmes

The multi-media library can also make provision for students who wish to produce their own programmes and materials. If this practice is encouraged a high level of utilisation of non-book materials and media literacy in its widest form would be attained.

Media litera

Once the students have acquired media literacy they will have attained a measure of insight into training methods - this knowledge may prove invaluable to them in later life when they themselves may be responsible for training programmes.

Expanding the cognitive wor

The importance of expanding the cognitive world of many of the Third World students becomes apparant in the context of the technological seclusion of the Third World itself. If lectures are supplemented with and illustrated by audio-visual programmes, educational deprivation can be considerably remedied, since many previously vague, foreign or abstract concepts can be exemplified and be incorporated into the student's world of experience.

The multi-media library offers students access to computer applications. Computer terminals, micro-computers or even personal comput-

Computer applications

ers can be utilised under supervision and in a controlled environment. The programmes can be accommodated in special packaging and be made available when required. This application of the multi-media library can make a considerable contribution to the technological literacy of students. As an additional service to users the computers can be utilised as word processors.

Space arrangement

Spaces where the hardware is set up permanently should be, if possible, in close proximity to the storage area of the audio-visual programmes. Apart from the sheer convenience such permanently installed carrels would provide, a greater utilisation of non-book materials would be encouraged.

Self-paced learning

Often students are selfconscious of their own lack of knowledge and are reluctant to ask advice. Potential learning experiences would not be lost if students are trained to help themselves and are subsequently given the opportunity to learn in privacy and at their own pace. In this respect, too, the multi-media library via the media and media services it incorporates has an important role to play.

Academic staff

The second category of users that would benefit directly from the application of the multi-media library at tertiary level would be the academic staff.

Utilisation facilities provided

When the internal relationships of the components of the multi-media library are formalised, the philosophy of the multi-media library, namely the educational application of all media, can be realised. The philosophy of the application of educational technology is that the multi-media library should act as the catalyst between the teacher and the learner. The multi-media library should provide the facilities for both teacher and learner to utilise educational technology as comprehensively as possible.

Teaching support

In many instances the academic staff experiences a need to upgrade their teaching skills. The implementation of educational technology and the utilisation of the support services offered by the various components of the multi-media library should lead to academic development in this field.

In the Third World context lecturers may require assistance with designing curricula that are relevant to Third World needs, or may need help in discovering, applying and implementing teaching methods that are more applicable to the needs of Third World students For instance, when students lack academic depth in certain fields such as language skills, scientific skills or mathematical skills, additional programmes may be produced to compensate for the specific background deficiencies.

Academic planning assistance

The community in general would be the third category of persons who would benefit from the application of the multi-media library. The exponents of rural development, agricultural extension and literacy programmes who have received their training at institutions which have a multi-media library would have been exposed to educational technology and would have experienced at first-hand its salutary educational effects. These persons would naturally be more easily inclined to implement multi-media and would find it more easy to utilise these media creatively in their own specific programmes. A review of the literature reveals that the potential of the application of audio-visual programmes and materials in the education and training of illiterates or semi-literates has been widely accepted (Baker, 1981:70,222), (Frylinck, 1983a:89), (Kotze, 1980: 24-25).

Community applications

The African has always had an oral tradition, and therefore he is more susceptible to audio-visual materials than is generally believed. New concepts and experiences have to be learned by him, and through the technology of education, information can be packaged and disseminated in accordance with the individual's personal aesthetic and expressive symbolism. In other words, the information can be tailored to the specific needs of the individual (Amadi, 1981:53).

New concepts can be assimilated

6.3 ECONOMIC FACTORS

The reality that education is a prerequisite for economic and technological development has been realised by both First and Third World countries. In the Third World especially this fact is proved by the high percentage of the average national income that is spent on education. In the United States of America the technological advancements of the 1960's and the utilisation of educational technology went hand in hand. Schramm (1977:18) quotes examples of a number of Third World states that have applied educational technology in an attempt to accelerate education. A review of the literature reflects that there is general consensus regarding the application of non-book materials in education.

Educational technology wi accelerate education

Economic viability

The utility of non-book materials which have been moved into academic libraries is better appreciated in the context of modern teaching than perhaps was the case previously (Orne, 1982:3). The economic viability of the utilisaton of all media in teaching has become increasingly acceptable, since the effectiveness of the teaching staff can be optimised (Lor, 1978:196-197). The resultant increased productivity on the part of both teacher an learner is also economically salubrious.

6.4 GEOGRAPHIC LIMITATIONS

Seclusion and climatic conditions

The geographic limitations, such as the seclusion and adverse climatic conditions, that are associated with all the Southern African Third World states have application possibilities for the multi-media library.

The needs of the Third World in general as well as the local conditions make the tailoring of educational programmes and curricula to specific needs imperative.

The production unit and the educational technology unit can produce such programmes to supplement commercially produced programmes.

Utilisation possibilities

Under adverse climatic conditions, such as heat, dust and humidity, the multi-media library offers a controlled environment which is conducive to productive studying by students. The fact that all the media are conveniently arranged and that media utilisation experts are always at hand in close proximity to render assistance when needed is also conducive to more productive utilisation.

6.5 STAFF UTILISATION

Extension of the librarian's responsibilities

The librarian is the trained information worker and the extension of his responsibilities to include the management of non-book materials has come as a natural development when such non-book materials have been included in the library stocks.

Specialisation required for educational application

The same basic principles that are valid for books are also applied in the organisation and management of non-book materials, although a higher degree of specialisation is required to ensure that the utilisation of the non-book materials is in line with generally accepted educational principles. The librarian should ideally also have some technical insight into the operation of the hardware that is required to relay the educational message of the non-book materials.

The librarian, because of his training, is always oriented towards the needs and problems of his users. This "service-oriented" approach, combined with the accessibility of the materials, will lead to better utilisation of educational resources.

Service-oriented

The staffing structure of the multi-media library is very flexible. The various components of the multi-media library, namely the educational, library, administrative and production components are accommodated in the staffing structure and depending on the needs of the institution the emphasis of the relative components may be arranged internally. Many posts, in the ranks of the support as well as the professional staff can be shared by the components of the multi-media library. In-service training can prove invaluable to ensure effective utilisation of staff in their various roles.

Staffing structure is flexible

The fact that the components of the multi-media library are usually accommodated in the same building facilitates the convenient sharing of posts.

The hierarchial structure of the top and middle management level should represent all the components of the multi-media library, since a system of management by objectives can be implemented more effectively if all components have an input into the management policy.

Combined management

6.6 ADMINISTRATIVE INFRASTRUCTURE

The library has well developed administrative infrastructural procedures. When the other components of the multi-media library are added, these established procedures can be adapted to include new responsibilities.

Well develope
administrati
infrastructu

If all administrative functions are centralised, possible delays caused by the duplication of services can be eliminated and better control can be exercised.

6.7 USERS' NEEDS

6.7.1 INFORMATIONAL NEEDS

Wider application

The educational component of the multi-media library has a wider function than the purely academic. It can also be applied in alleviating other needs of the users and can even fulfil needs which are expressed on a community level.

Community involvement

The involvement with the community may be in the form of exhibitions or shows and may include participation in rural development, literacy programmes and agricultural extension services.

Social roles

The informational needs of the students can also be anticipated. These needs are often related to the fact that the students are assuming new social roles and are attempting to bridge the gap between the First and Third World. They are often uncertain as to the rules that apply in their new social order and often feel a need for guidance regarding etiquette and career selection, for instance.

Potential for information needs

Librarians should always be sensitive to potential needs of users and channels for communicating potential library deficiecies should be created. Junior members of the library staff who are in daily contact with the users can therefore also have an input into the management by objectives system.

6.7.2 SOCIAL NEEDS

Need for social guidance

The social needs of the inhabitants of the Third World have changed as a result of urbanisation which has brought far-reaching changes into the social order. The entrants to the new social order, the students, require guidance regarding their roles and responsibilities in such an order. First-year students, especially, feel a particular need in this respect.

Social education

The multi-media library can play a role in this regard. Often information about a social role is of a personal nature and fears of being ostracised by peers exist. The multi-media library can provide programmes which can informally or incidentally educate students regarding their new social roles.

If the informational and social needs of the users are not met, stress can cause emotional problems. Unproductivity due to frustration and tension also has social and economic repercussions.

6.7.3 PSYCHOLOGICAL NEEDS

If the informational and social needs of the users are not met, stress can cause emotional problems. Unproductivity due to frustration and tension also has social and economic repercussions.

Stress

6.7.4 NATIONALISM

The multi-media library can produce its own material and is therefore not dependent on material which originates from foreign countries and which has a foreign content, propounds a foreign ideology or is produced in a foreign tongue.

Local programmes

6.7.5 CULTURAL AND RECREATIONAL NEEDS

Although a few cultural programmes may have recreational value, the majority of programmes managed by the multi-media library at a tertiary level are academically oriented. The recreational role of the multi-media library is not completely precluded. The needs of the users should be taken into consideration when determining utilisation policies. In a rural setting the multi-media library can provide recreational programmes as the facilities for showing such programmes exist. The multi-media library, however, has a more limited role to play as regards recreational activities.

Mostly academically oriented

The cultural applications of the multi-media library are significant and considerable. In the Third World context the multi-media library can serve the community by gathering oral accounts and by placing them on magnetic tape. Cultural practices, traditional music and costumes may be recorded in various formats and may be preserved.

When these cultural activities are reproduced in audio-visual form they receive additional exposure and have a great impact. The multi-media library provides the facilities thus to preserve and to extend the indigenous cultural heritage.

6.7.6 SPIRITUAL NEEDS

Religion is the ground motive for all education

Religion is the ground motive for all education. Therefore, the wider perspective of the educational function of the multi-media library is realised by offering the facilities to bring the wealth of religious programmes that are in non-book form within the reach of the user.

It is therefore not merely the students of theology who may derive benefit from the application of the multi-media library in the religious sphere.

Religious programmes

Programmes illustrating Biblical truths or transmitting religious messages may be acquired and may be made available to all students.

6.8 CONCLUSION

The application of the multi-media library does not offer instant solutions to all the problems and needs of the Third World. The multi-media library may however, be applied significantly in the educational field.

Manpower needs

The application of the multi-media library gains a new perspective when one takes into consideration the manpower requirements of the developing world, which requires not only trained manpower, but which needs people with creative problem-solving talents. Qualified manpower is scarce and therefore those that enter the labour market should have had the best and most pertinent training available. The multi-media library through the application of educational technology delivers a valuable service in this respect.

7.CONCLUSION.

The hypothesis of this dissertation, namely that the multi-media library offers solutions to some of the regional problems of underdevelopment, was tested by analysing the results of the survey. The survey reflected a regional acquiescence to the concept of multi-media libraries. 80% of the participants indicated that their institutions have accepted in principle the basic concept of the multi-media library. In a recent survey conducted in the Republic of South Africa, it was established that all university libraries in the RSA have also become heavily involved with audio-visual materials and services. A survey that was conducted a decade previously reflected that only 25% of the South African university libraries were involved with audio-visual services or planning of such services (Musiker, [1985]:6). There is therefore an acceptance of the role non-book materials can play in tertiary education in the region as a whole, at both First and Third World institutions.

"Most nations, whether so-called 'developed' or 'developing' no longer question whether modern technology should be utilised to improve education" (Molstad, 1983a:8). The regional acceptance of multi-media by university libraries is due to the realisation of the educational potential of the application of educational technology, which can be offered as part ot the services of the multi-media library.

The Third World tertiary institutions are at present adapting to the challenge of the newer educational media in an attempt to accelerate development. In the Third World context especially, the traditional methods of solving problems must be replaced by modern innovative methods.

The multi-media library offers an opportunity for the utilisation of educational media in all formats by offering the necessary supportive infrastructure, whilst at the same time diminishing resistance to all forms of technology arising from a lack of acquaintance with and confidence in modern technological developments.

The theoretical examination of the needs and problems experienced in the Third World in general was largely confirmed by the follow-up local investigation into the Southern African Third World states. The reason for the concurrence can be attributed to the fact that they are all members of the developing community and therefore share the same problems as well as the same goal, namely development in all fields.

This concurrence justifies far greater regional co-operation than is being experienced at present. The lack of co-operation between the TBVC states and the RSA on the one hand, and the internationally recognised states on the other hand, is mostly politically motivated, although geographical and infrastructural considerations may also play a role. It is for instance, difficult for Malawi to liase on a regular basis with Venda.

The educational potential of the multi-media library implemented in an attempt to improve the quality of education is supported by the Southern African Third World states. It is in the field of education that the most pressing need for development is felt, since educational development will have beneficial effect on all other sectors.

Educational and academic co-operation on a wider regional scale would lead to concerted action that would minimise duplication of expensive research. A considerable pool of expertise could be mustered, as individual states have had to cope with problems and each has specific attributes that have been developed to cope with their problems and challenges. A cross-fertilisation of ideas and solutions can only be conducive to educational development within the region.

The potential for co-operation on a regional basis does exist. This is proved by the enthusiastic support that was given to this study by all ten participants. At the moment regional co-operation is facilitated by the Standing Conference of Eastern, Central and Southern African Librarians (SCECSAL) which acts as an umbrella body. SCECSAL or one of the library associations of the internationally recognised states could take the initiative to depoliticise co-operation by, for instance, inviting individuals or professional bodies from any state in the region, to make contributions at conferences, workshops, or in study or research groups. Bophuthatswana, Transkei, Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe each have a national library association. In the RSA there is SAILIS whose membership is open to all South African citizens of all races as well as the African Library Association of South Africa (ALASA), which, although affiliated to SAILIS, is more oriented towards Black library interests in the RSA.

It is therefore only the SCECSAL that could have the potential as an umbrella body to co-ordinate and support library interests on a regional basis.

The concept of the multi-media library is a concept that has developed in the region only within the last decade. A large percentage of institutions are developing multi-media libraries on an unco-ordinated basis. Some have made more progress than others, but due to political considerations reciprocal exchanges of expertise and knowledge cannot be accommodated.

Garbers (1984:19) sees education and training as the key to Africa's advancement. He quotes the examples of Japan, South Korea, Taiwan and Israel as countries that have modernised over the past forty years. Africa has an advantage. It has been experiencing change at a rapid rate over the past twenty five years, and to adapt and change has become acceptable.

Because of the immense technological backlog that Africa is facing, all possible alternative solutions to expedite development must be investigated. The multi-media library, by providing access to the latest educational media and technological developments, can make a useful contribution to the creation of a media and technologically literate generation.

APPENDIX A

QUESTIONNAIRE

Please indicate with a cross (X) in the block next to the statement/question, whether you subscribe to or disagree with it:

eg.: YES NO if you agree
X

If you have no access to certain statistics or if a certain question applies to another department, please refer these sections together with the covering letter to the relevant department after you have completed the rest of the questionnaire.

Please feel free to make comments. If the space provided is not enough, please make use of the back of the relevant page.

---

1. Does your University have a formal or written policy statement regarding the treatment of audio-visual media?

.... YES NO
....
....

2. Would you please answer and comment (where applicable) on the following policy statements regarding audio-visual media in libraries:

2.1 The media should be integrated with the books

.... YES NO
....
....
....

2.2 There should be separate facilities for the storage of audio-visual materials in the library

.... YES NO
....
....
....

2.3 A separate department should be responsible for audio-visual materials and these materials should be stored elsewhere than in the library

.... YES NO
....
....
....

2.4 Any general comments on the topic of storage and retrieval of audio-visual materials?

.... YES NO
....
....
....

3. What educational materials does the University Library stock ?

YES NO

3.1 Books
3.1.1 Books
3.1.2 Pamphlets
3.1.3 Periodical titles
3.1.4 Others

....
....
....
....

Is the University Library responsible for audio-visual materials ?

.... YES NO
....
....
....

If "no", please direct the next section to the relevant department.

3.2 Non-book Materials

Approximate Quantities

1-10 11-20 21-30 31-50 ——— 2 000

3.2.1 16mm Motion Pictures ____________
3.2.2 8mm Motion Pictures ____________
3.2.3 35mm Slides ____________
3.2.4 Filmstrips ____________
3.2.5 Film loops ____________
3.2.6 Overhead transparencies ____________
3.2.7 Multi-media kits ____________
3.2.8 Gramophone records ____________
3.2.9 Audio cassettes ____________
3.2.10 Audio tapes(reel to reel) ____________
3.2.11 Video tapes ____________
3.2.12 Sound-slide sets ____________
3.2.13 Sound-filmstrip sets ____________
3.2.14 Art Prints ____________
3.2.15 Maps ____________
3.2.16 Globes ____________
3.2.17 Models ____________
3.2.18 Micro fiche ____________
3.2.19 Micro film ____________
3.2.20 Multi-image programmes ____________
3.2.21 Interactive Video ____________
3.2.22 Programmed learning ____________
3.2.23 Others :
.... ____________
.... ____________

4. Is the Library responsible for the storage etc. of the equipment which utilises the media mentioned

YES NO PARTIALLY RESPONSIBLE

____

____

If your answer to the above question is, "No" or "Partially responsible", please direct the following section to the relevant department.

	Number in stock	Is the number in stock sufficient?	
		YES	NO
4.1 16mm projectors			
4.2 8mm projectors			
4.3 Slide projectors			
4.4 Overhead Projectors			
4.5 Opaque Projectors			
4.6 Film loop Projectors			
4.7 Video receivers			
4.8 Television receivers			
4.9 Radios			
4.10 Gramophone Record Players			
4.11 Audio-cassette Players			
4.12 Slide-tape Players			
4.13 Filmstrip-tape Players			
4.14 Light Boxes for slide viewing			
4.15 Micro Fiche viewers/ projectors			
4.16 Micro-film viewers/ projectors			
4.17 Multi-image projection equipment			
4.18 Interactive video's			
4.19 Reel-to-reel tape recorders			
4.20 Computer terminals/ facilities			
4.21 Others			

5. Where are the audio-visual materials utilised? YES NO

______

5.1 In the library ______
5.2 In a separate study room ______
5.3 A combination of 5.1 and 5.2 ______
5.4 In lecture halls ______
5.5 Others ______

.... ______
.... ______
.... ______
.... ______
.... ______

6. What media services are provided by your University ?

6.1 Audio-visual service centre YES NO
(slide, film and video library; projection services; graphics; production, etc.)

6.2 Motion picture and/or video and slide production or duplication services YES NO

6.3 Language Laboratory YES NO

6.4 Academic/Instructional Design YES NO
(planning general instruction/teaching using instructional media)

6.5 Photographic laboratory YES NO

6.6 Educational Radio Centre YES NO

6.7 Television Centre (Educational) YES NO

6.8 Computer Centre YES NO

6.9 Multi-media independent study areas YES NO

6.10 Technical Services
(repairs and maintenance of audio-visual equipment) YES NO

6.11 Production Personnel YES NO

7. Is there a specific department responsible for Academic/Instructional Design?(no. 6.4 above) YES NO

If the answer is "yes", what is the official designation of the department responsible?

....

....

8. Which approach is being followed regarding user-instruction in the library?

	YES	NO	If "yes" please indicate % of total weight specific method carries
8.1 Pamphlets			
8.2 Lectures			
8.3 Guided tours			
8.4 Sound-slide presentation			
8.5 Sound-filmstrip presentation			
8.6 Video film			
8.7 Audio film			
8.8 Multi-media lists			
8.9 Overhead projection material			
8.10 Others			

9. What subject specialists are used in the Library ?

YES NO

9.1 Subject librarians/specialists ____________
9.2 Training specialists ____________
9.3 Media Librarians / Officers ____________
9.4 Computer Specialists ____________
9.5 Others
.... ____________
.... ____________
.... ____________

10. Would the person/persons who have completed this questionnaire please fill in their names and respective titles:
....
....
....

Institution: ....
Date: ....

Your co-operation is deeply appreciated.

APPENDIX B

A SUMMARY OF THE CONTENTS OF THE COMPLETED QUESTIONNAIRES AND THE INFORMATION OBTAINED IN THE CONSEQUENT FOLLOW-UP VISITS.

1. NON-BOOK MATERIALS IN UNIVERSITY LIBRARIES.

		YES	NO	PARTIALLY RESPONSIBLE	NO REPLY
1.1	Policy statement	3	6		1
1.2	AVM should be integrated with the books	2	7		1
1.3	There should be separate storage facilities for AVM in the library	9	1		
1.4	AVM should be stored outside the library	1	9		
1.5	Is the university library responsible for AVM ?	9	1		
1.6	Is the university library responsible for hardware ?	4	3	2	1
1.7	Does the university library have media specialists ?	4	2		4
1.8	The principle of multi-media collections accepted for future development	8	2		

2. THE UTILISATION OF EDUCATIONAL MULTI-MEDIA

		Yes
2.1	In the university library	5
2.2	In a separate study room	3
2.3	In the university library/study room	5
2.4	In lecture halls	7

3. MEDIA SERVICES OFFERED BY THE UNIVERSITIES

		YES	NO	NO REPLY
3.1	Audio-visual service centre	9	1	
3.2	Motion picture/and or video and slide production or duplication services	7	3	
3.3	Language laboratory	10		
3.4	Photographic laboratory	6	4	
3.5	Educational radio centre	1	9	
3.6	Television centre	5	5	
3.7	Computer centre	8	2	
3.8	Independent multi-media study areas	4	5	1
3.9	Technical services	5+1*	4	
3.10	Production services	6	3	1

4. ACADEMIC / INSTRUCTIONAL DESIGN

		YES	NO	NO REPLY
4.1	Does the university offer such services ?	8	2	
4.2	Is there a separate department responsible ?	3+1*	5	1

* Planned.

OPSOMMING

DIE IMPLEMENTERING VAN DIE MULTI-MEDIABIBLIOTEEK IN DIE TERSIERE OPVOEDING BINNE DIE SUIDER-AFRIKAANSE DERDE WERELD

1. DOELSTELLING

Die opvoedkundige funksie van die universiteitsbiblioteek word algemeen aanvaar. In die Derde Wereldverband behoort daar egter 'n klemverskuiwing t.o.v hierdie funksie te wees. In die Derde Wereld behoort meer klem op die akademiese ondersteuningsfunksie van die universiteitsbiblioteek geplaas te word. By universiteitsbiblioteke in die Eerste Wereld word groter nadruk op die navorsingsfunksie geplaas.

Alle moontlikhede wat 'n positiewe bydrae kan lewer om opvoedkundige-en ontwikkeling te bespoedig, behoort ondersoek te word. Hierdie veronderstelling le die grondslag tot die hipotese van hierdie verhandeling, naamlik dat die toepassing van die multi-mediabiblioteek die moontlikheid bied tot die oplossing van sommige van die opvoedkundige en ontwikkelingsprobleme van die Derde Wereld.

2. METODE VAN ONDERSOEK

Die ondersoek dek drie bree studievelde, naamlik die multi-mediabiblioteek, die Derde Wereld en die toepassing van die multi-mediabiblioteek op die heersende toestande in die Derde Wereld.

Die voorbehoud tot die toepassing van enige teorie is kennis van die toepassingsveld.

Gevolglik is 'n literatuurondersoek gedoen wat die multi-mediabiblioteek en die behoeftes en probleme van die Derde Wereld ingesluit het. 'n Vraelys is aan die universiteitsbibliotekarisse van die tien Suider-Afrikaanse Derde Wereldstate (Transkei, Bophuthatswana, Venda en Ciskei; Botswana, Lesotho, Malawi, Swaziland, Zambie en Zimbabwe) gestuur. Die vraelys is opgevolg deur besoeke om o.m. sowel plaaslike behoeftes, probleme en oplossings as ontwikkelings t.o.v. die toepassing van opvoedkundige media te bepaal.

Laastens word die moontlikhede wat die toepasssing van die multi-mediabiblioteek bied, uitgewys wanneer dit toegepas word op die behoeftes en probleme van die Derde Wereld.

3. GEVOLGTREKKING

80% van die state wat by die opname betrek is, het die beginsel van die organisasie en bestuur van alle opvoedkundige media deur die universi- teitsbiblioteek in beginsel aanvaar.

Die toepassing van die multi-mediabiblioteek het veral besondere moontlikhede op opvoedkundige gebied. Dit is juis ook ontwikkeling op opvoedkundige gebied wat as voorwaarde vir ontwikkeling in die ander sektore gestel word.

Die wye onderskrywing op streeksvlak van die implimentering van die multi-mediabiblioteek dui dan ook daarop dat tradisionele metodes van probleemoplossing vervang moet word deur moderne en vernuwende metodes. Die implimentering van die multi-mediabiblioteek bied een so 'n moontlikheid.

SUMMARY

THE APPLICATION OF THE MULTI-MEDIA LIBRARY IN SOUTHERN AFRICAN THIRD WORLD HIGHER EDUCATION

1. OBJECTIVE

The educational function of the library has been widely accepted. In the Third World context, however, the function of the university library should be viewed in terms of academic support as opposed to the more research-oriented function of the more established university libraries of the First World.

All possible alternatives that could make a contribution to accelerating educational progress should be investigated. This assumption forms the basis of the hypothesis: that the application of the multimedia library offers solutions to some of the problems experienced in the Third World.

2. METHODS OF INVESTIGATION

The study embraced three broad fields: namely, the multi-media library, the Third World and finally the application of the multimedia library with regard to the conditions prevailing in the Third World.

A precondition for the application of any theory is a sound theoretical and practical knowledge of the field in which the theory is to be applied.

A literature search concerning the multi-media library as well as the needs and problems of the Third World was undertaken and a questionnaire was sent to the university librarians of the ten Southern African Third World states: Transkei, Bophuthatswana, Venda, and Ciskei; Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe. This questionnaire was followed up by visits to determine, inter alia, the extent of relevant local development, as well as local problems and solutions.

Finally, the potential advantages of the application of the multi-media library was applied to the needs and problems of the Third World.

3. CONCLUSION

The fact that 80% of the participants in the survey have accepted the principle that the university library should be involved in the organisation and management of all educational media library reflects a regional concurrence with the hypothesis.

The educational potential of the multi-media library is considerable. Accelerated education will benefit development of the society and state as a whole.

In the Third World with its developmental backlog, traditional methods of solving problems must be replaced and augmented by modern innovative methods. The educational application of the multi-media library provides the possibility of offering solutions to some of the problems of development experienced in the Third World.

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